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ORIGINAL LECTURES.

CLINICAL LECTURE

ON CASES REQUIRING AMPUTATION OF MAMMARY GLAND FOR HYPERTROPHY, AND EXCISION OF THE HIP-JOINT FOR COXALGIA.

Delivered at the Jefferson Medical College Hospital, Philadelphia,

BY J. M. BARTON, M.D.,

One of the Attending Surgeons to the Hospital, etc.

Reported by Dr. J. M. FISHER, Clinical Assistant.

GENTLEMEN, — This patient, Ellen W., aged 17 years, single, a slightly-built colored girl, has an enormously enlarged left breast. Her family history is good, and she has enjoyed perfect health since childhood. She menstruated regularly until four months ago, but not since.

This breast became slightly and temporarily increased in size about three years ago. One year ago, while but little if at all enlarged, it began to grow rapidly, until it now measures twenty-seven inches in circumference; it is distinctly pedunculated, its circumference at the base being only twenty-one inches. Its outline is quite regular, its surface perfectly smooth; the superficial veins are greatly dilated, some being as large as the little finger; the nipple is retracted and surrounded by an eczematous eruption probably due to pressure, as this is the most dependent part of the growth.

Upon palpation, I find no distinct tumor in any part. It is more dense than the normal breast, and in all parts it feels as though an irregularly-coiled, small, hard rope were between the fingers. There is no sensation of fluctuation, little if any increase of heat, no discoloration, and it is not adherent to the skin nor to the deeper tissues. There is no glandular enlargement in the axilla. The other breast is apparently normal.

The size of the growth, the age of the patient, and the absence of any distinct tumor, exclude at once scirrhus, fibroma, myxoma, the smaller adenomata, and the solid sarcomas.

The absence of fluctuation excludes all cystic growths, and, I might say, excludes the softer varieties of sarcoma. Though rapidly-growing round-celled sarcoma, or any form with a large number of small cysts, frequently bears a strong resemblance to this condition, yet the absence of all fluctuation, of any decided heat, and of any pain, together with the great uniformity of the outline of the growth and the good general condition of the patient, excludes all suspicion of this form of malignant tumor.

We have here a simple hypertrophy of all the glandular apparatus. The ducts, the acini, and even the fibrous stroma are increased, and in such growths it has frequently been found that the fibrous stroma has made distinct, small, fibroid tumors. It differs markedly from the normal breast in the entire absence of fat. On microscopical examination of such growths we find some fibrous stroma, though less in proportion than in the normal gland, but great increase in the glandular elements, so that the tumor can be classed as an adenoma, or as a fibro-adenoma.

This form of tumor is quite rare: the late Professor S. D. Gross, in his Surgery, recorded but one case that came under his personal observation. Professor Agnew recorded only two, and Professor Billroth, in his book on Mammary Tumors, also states that he has seen but two cases.

Such tumors occur most frequently about the seventeenth, or from this to the twentieth, year, just after the beginning of menstruation, though some exceptional cases have occurred as late as the forty-third year. Of thirty reported cases, the average age was less than twenty-three years, though thirteen of them were under twenty and twenty-one of the thirty were under twenty-five years.

Both breasts are usually enlarged in this disease, one more than the other. In thirty-four reported cases both breasts were diseased in twenty-two cases, the right alone in seven, and the left in five.

If permitted to remain, they incommode by their size and weight and interfere materially with the individual earning her livelihood. Occasionally they are the cause of death. I find reports of three fatal cases. The first, reported by Dr. Grähs, was a young woman of fifteen years of age, in whose hypertrophied breast "abscess after abscess formed, sinuses ran in all directions, and, notwithstanding an enormous discharge of pus, the breast continued to increase in size."

She perished with pyæmia five years after the beginning of the disease.

The second case died with exhaustion, and the third with gangrene of the hypertrophied breast.

In the patient before us I will remove the entire growth, making skin-flaps to cover the wound, adopting the usual antiseptic precaution with which you are so familiar, as you have seen all your clinical teachers use them here for several years. As most of these cases bleed quite freely, I will surround the base of the gland with an Esmarch's tourniquet while I am fashioning the flaps, and will then rapidly remove the breast, seizing such vessels as spring with these Pean's forceps, which I find very serviceable under such circumstances. After all the vessels are secured by catgut, the wound again thoroughly flushed with the bichloride solution, the flaps are brought together with the continuous catgut suture and the antiseptic gauze applied. Of course there is no danger of any return of this disease.

[*Note by reporter.*—The dressing was removed the following day saturated with bloody serum, fresh mercurial gauze was applied, and, as the temperature remained normal, it was not redressed for ten days, when the wound was found to have healed without a drop of pus.]

COXALGIA: EXCISION OF THE HEAD OF THE FEMUR.

Levi L., æt. 8 years, has suffered for three years with coxalgia, the disease being now far advanced in the third stage. You see the thigh, buttock, and back are riddled with sinuses, the leg is flexed to a right angle with the pelvis, and the patient is thin, exhausted, and nervous.

Under ether, I find the leg shortened, the trochanter being two inches higher than it should be. The leg rotates freely, the femur rotating on its own axis, showing that the head and neck are separated from the shaft and probably long since broken down and discharged with the pus.

Making a free incision down to the bone, we find the trochanter carious and softened, and as two of the many sinuses are nearly in this line I shall carry my incision through them. Now rapidly raising the thickened periosteum with this special elevator of Dr. Sayre, then dividing it transversely at the point where I propose making the section of the bone,—that is, about three inches below the upper extremity of the trochanter,—I now readily loosen the periosteum entirely around the bone, and by means of a Bellocq's canula draw the chain-saw into position, with which the bone is now divided, then grasping the trochanter with a "lion-jawed" forceps it is held firmly while the muscles are separated. The trochanter and the remains of the neck are now lifted out.

I am glad to say there is no disease of the acetabulum. The carious portions have long since been separated and discharged, and the cavity of the acetabulum is filled with healthy granulations. The sinuses are now scraped, and drainage-tubes passed through some of them. The wound and the sinuses are flushed with bichloride solution, a large drainage-tube is laid in the wound, and the wound brought together.

The boy is placed at once in the apparatus known as "Sayre's wire cuirass," which extends from head to foot, covering the posterior half of the body.

It has a fenestra opposite the wound, permitting it to be dressed without disturbing the granulations which will form about the new joint.

Full extension is kept up, so that the sawn end of the femur may be opposite the acetabulum, otherwise the femur would travel up to the situation formerly occupied by the trochanter. The extension is made by adhesive plaster applied to the leg in the usual manner. The cord from the adhesive plasters runs through this pulley fastened to the apparatus just below the foot, and it then passes upward to be attached to a strong piece of elastic the upper end of which is firmly fastened some distance up on the wire cuirass. This maintains a constant tension of about six pounds. The boy is prevented from slipping down by the well foot pressing against this adjustable wooden foot-piece. In this apparatus he can be readily handled; it is not necessary to remove him from it to relieve either bowels or bladder, or to dress the wound. He can be given a change of air, he can even take a drive in a carriage.

After the cavity left by this operation has filled with granulations, the joint will be fixed by plaster or some other form of apparatus. He will then be permitted to walk on crutches, with a sole some inches thick on the well foot to keep the diseased leg from contact with the ground, and thus maintain extension by the weight of the pendent extremity.

ORIGINAL COMMUNICATIONS.

ON BLISTERING THE SURFACE OF THE BODY IN INTERNAL INFLAMMATIONS.

BY ENOS T. BLACKWELL, M.D.

OUR medical fathers had a few remedial forces which they wielded in many different conditions and with powerful effect. The theories for their action were definite in their minds, and they wavered not in driving them to a definite conclusion. That they were always judicious in the exercise of these powerful agencies can hardly be affirmed; yet we cannot fail to admire the clearness of their views, the firmness of their convictions, and the boldness of the ensuing practice.

With the revolution of years and the innovation of modern speculations, the methods so long and faithfully relied upon began to be questioned in men's minds, and by a rebound—peculiar to all reforms, genuine and spurious—a sweeping ostracism of the old procedures resulted. The most opprobrious epithets were applied to the obnoxious remedies, and they were denounced as barbarous and harmful under all circumstances. A crusade was waged against calomel, blood-letting, and blistering, which had the effect to deter the timid from their use, and to lead them to accept in their stead the alluring placebos and so-called sustaining remedies now so much in vogue. Disregarding the clamor of the ignorant aud prejudiced, I have used in appropriate cases and at suitable times each of the remedies so persistently maligned, and with excellent results.

In the *Philadelphia Medical Times*, vol. x. page 522, I gave an article on the benefits derived from calomel in certain morbid states; and in the *Medical and Surgical Reporter*, vol. lv. p. 72, one in which venesection was shown to play an important part in averting threatened destruction of life. In the present paper I propose to give a few cases from many which show the inestimable importance of blistering the surface as a curative agency in internal inflammations, whose fatality is fully described by all mortuary records. In the first of the journals named, under the heading of "Catarrhal Pneumonia,"* two cases are related in which the gravest condition was changed for the better most quickly and strikingly.

I refer to the case of Bertie B., 22 months of age, whose respirations before using the blister were 100 per minute, and the pulse 120,—a ratio of ten to twelve. After the production of a blister upon the whole front of the chest, from lines dropped from each armpit, the respirations receded to a range of 72 to 86, while the pulse-rate remained unchanged,—a ratio of seven to twelve. A renewed frequency of respiration on the fourth day thereafter was reduced by extending the blistered surface to the edge of the scapulæ on either side, when the rate of breathing descended to 50 per minute, and continued thereupon to diminish until the natural health-rate was reached. In just a month from the first outbreak as a catarrh the patient was dismissed completely recovered.

The second case was that of Walter H., 13 years of age, recorded in the same paper, and is equally instructive. He had pneumonia as a complication of measles, which commenced April 18, 1883. During the forenoon of Friday, April 20, he coughed almost incessantly. In the afternoon the cough was less, but the fever increased and the respiration became very rapid. At 9.30 A.M., April 21, the rate of the respiration, as reported by the medical attendant, was 60 per minute, varying little during the day. I saw him at 9 P.M. of that day. There were fine crepitant râles in the lower lobe of the right lung, and a few scattered coarse ones in the left. His respiration was 40 per minute, and heaving in character; his pulse 130,—ratio, four to thirteen. The temperature was 104° Fahr. April 22, 11.30 A.M., a full blister, extending across lower part of the breast from scapula to scapula and four inches wide, has been produced. The respirations now number 28, and the pulsations 120,—ratio nearly three to twelve. The crepitation is greatly lessened. At 3 P.M. of the same day the respiration had a further decline to 24 per minute, and the pulsation to 84. April 23, the respiration has risen to 36, and the pulse to 100. There is a crepitant râle of great intensity, dry and crackling, in the whole upper part of the right lung. Upon blistering the whole surface of that side of the chest not already vesicated, the respiration became easier and a moist râle succeeded. The case came to a successful issue under

* Philadelphia Medical Times, vol. xiii. p. 887.

the use of ordinary remedies. It may be proper to state here that neither opium nor quinine, which were freely used, availed to check the advance of the inflammation.

The following cases have never been reported, and are equally valuable as indications of cure:

Lizzie S., infant, was taken March 30, 1885. I saw her on the day following, when she had catarrhal pneumonia fully formed. There were crackling and sibilant râles in both lungs. The respirations were 64, and the pulse 120 per minute,—ratio, one to two. A cantharidal plaster was so placed as to conform to the contour of the whole anterior part of the chest. On the day following the respirations had decreased in a marked degree, and all the symptoms were surprisingly improved. I ceased attendance on the seventh day, the patient having entirely recovered.

Joey B., 1 year old, was taken with distressed breathing and cough March 20, 1887. I saw him at four o'clock P.M. The respirations, because of his uneasiness, were not accurately made out, but appeared to be about 90 per minute; the pulse was about 125. I found a soft cataplasm upon the chest, which was allowed to remain, and quinine sulph. was given alternately with ext. ipecac. fl., ext. jaborandi fl., and tinct. opii.

March 21, 9 A.M. There is no relief to the breathing, which numbers 84 per minute; the pulse is 125,—ratio, two to three. No râle can be detected. Cerate of cantharides was applied to the whole chest, right and left, and the other treatment was continued.

March 22. The plaster caused satisfactory vesication at the expiration of three or four hours. The respiration is less labored, and shows a rate of 72. A faint râle is heard in the left lung. The pulse is 120. Ratio of respiration to pulse, three to five. The bowels have been moved by calomel, the resulting fæces being very offensive.

March 23. A faint râle exists, as at the last examination. Respiration 42, pulse 125,—ratio, one to three.

March 24. All symptoms are favorable,—neither respiration nor pulse being such as to call for special notice. Alvine evacuations are numerous, and remain very offensive.

March 26. The patient still coughs, but is well in other respects. Period of treatment one week.

Mrs. L., a young married woman, was taken with a cold and hoarseness February 16, 1887. At my visit on that day she had a very high fever and general pains throughout the body; the pulse-rate was 140. The treatment was two grains quinine sulphate every two hours, and two grains opium every four hours. She received the same treatment until February 19, when, on account of severe vomiting, she took potassium citrate, creasote-water, and hyoscyamus, but no opium. Her skin was constantly bathed in perspiration, yet there was no remission of the rapidity of the heart's beating. She has been using externally from the commencement a remedy of her own, a tar-plaster.

February 20, 10 A.M. The patient has had a very severe pain during the night, as also a constant cough. The pain occupies the entire area of the left chest from scapula to sternum, and from the axilla to the free border of the ribs. She lies upon the right side, with the left arm close to the affected region, and is unwilling to move either the body or the arm. Early in the morning she commenced to expectorate bloody mucus; the respirations reach 38 per minute, and the pulsations 124,—ratio 1 to 3.3. The skin is moist, the tongue coated, and the stomach quiet. A plaster of cantharides was so placed as to conform to the painful area, and the following medicines were prescribed,—viz., three grains of quinine every two hours, and three grains of opium every six hours.

February 21. The plaster has caused a perfect blister. The patient is free from pain; the skin is moist; the cough and expectoration moderate; the sputa less bloody. The rate of respiration is 22, and pulsation 102,—ratio 1 to 4.7.

February 22. There is a constant sweat, the tongue is cleaner, the expectoration nearly colorless, and there is little pain. The respirations are 20, and the pulsations 96,—ratio 1 to 4.8. She sleeps considerably.

February 25. Respiration 19, pulse 76.

February 26. Took leave, the patient having recovered in eleven days.

The two following cases illustrate most strikingly the necessity of blistering in the cure of some of the inflammations connected with the female reproductive organs.

Mrs. P. is a young married woman, with one child. About the middle of October last, when her menstrual flux had been absent for six weeks or over, at the close of a wearisome day's labor she was taken with hemorrhage from the genitals and a pain referred to the fore part of the thighs, near the knee. The day following the pain shifted to the hypogastric region. After a few days, a discharge having the characteristics of that following abortion succeeded. On the morning of October 30, two weeks from the first attack, she suffered extreme pain and tenderness in the uterine region, and, as she received no relief at the hands of the empiric who had hitherto attended her, I was called to take charge on the evening of that day. At 8.30 P.M. she had extreme pain and tenderness in the hypogastrium, as well as in the fundament, constituting a true tormina. She had also irritable bladder and painful micturition; there was great thirst and dryness of the mouth; the pulsation was small and very frequent,—138 per minute. I

prescribed opium and quinine in large doses: the former to be repeated every four hours, the latter every two hours. A plaster of cantharides was made to cover the entire tender surface. In about three hours I was recalled, as the pain was insupportable, and the other aspects of the disease were still the same. I administered hypodermically a half-grain of morphine acetate; and this, with the opium regularly administered, secured tranquillity for the night.

October 31, 10 A.M. The cerate has caused a thorough blister; the pain and tenderness are greatly relieved; the pulse remains about the same. Evening visit, 8 P.M.: the relief in the abdominal region continues, and the pulse has receded to 122 per minute.

November 1, 10 A.M. Mrs. P. has had an abundant sweat in the night, and the pulse has declined to 102. The quinine and opium were continued as demanded by the fever and pain. On November 2, at 10 A.M., the pulse was at 98; on November 3 it was at 88, a very great sweat having prevailed during the night. There was a tender spot in the left iliac region, to which was applied a blistering plaster three by five inches. On the day following the tenderness was relieved, and the case—one of uterine peritonitis—went on to a rapid recovery, my visits ceasing November 20.

Mrs. H. had what appeared to be an abortion on December 21, 1886, there being pain and hemorrhage from the genitals. On examination no portion of the secundines could be detected in the uterine neck, which was dilated so as easily to admit the finger. Suitable remedies were employed, and the flow seemed to be stanched. The patient, however, failed to do well. There was persistently coated tongue, poor appetite, various pains about the lower limbs, very slight tenderness and pain in the uterus by pressure, with little or no quickening of the pulse. She received various treatment,—quinine, salicylate of sodium, diuretics, and anodynes,—a very great amount of opium being necessary to insure anything like comfort, out of all proportion to the apparent disease. The local treatment consisted of poultices, fomentations, etc., over the uterus, and liniments, vinegar, and flannels to the limbs. By January 17 the pulse, which had been so moderate before, became, notwithstanding the free use of quinine, quite rapid, — 120 per minute. The tenderness, though not acute, was persistent, and there were voided occasional clots of blood. A blister was placed on the hypogastrium, the opium and quinine continued, and, as there was a great sense of weakness and nervousness, the compound fluid extract of cinchona and the fluid extract of cimicifuga were also given, in fifteen-minim doses each. At my next visit, January 18, the tenderness was absent for the first time during her illness, and the pulse had declined to 112. On the day following it receded to 104.

The further record of this case affords nothing other as illustrating the use of blisters, but is valuable as the history of a case in no respect too clear in its indications. During the two following weeks the pulse continued from 95—a very common figure—to 118, the highest. She was also troubled with a nausea and vomiting, particularly at night. By the middle of February the clots, which had been appearing occasionally, were succeeded by a free hemorrhage. Upon an examination by the speculum there was seen to be erosion of the os uteri, which was somewhat dilated and giving vent to blood and mucus. A solution of nitrate of silver (forty grains to the ounce of water) was applied to the whole internal surface of the uterus, which was in a state of involution, and about the os as well. She had been taking for the stomach creasote-water and acid phosphate, the latter of which was now replaced by the extract of ergot,—the prescription reading as follows:

℞ Ext. ergotæ, f℥j;*
Ext. cinchonæ fluid. co.,
Ext. cimicifugæ fluid., āā f℥ss;
Aq. creasoti, f℥ij;
Syrup., f℥ss. M.
S.—Dose, a drachm thrice daily.

She received weekly a topical application of the silver salt, and, continuing the medicines as above, was discharged cured March 15, 1887, after an illness of three months' duration.

CEDARVILLE, NEW JERSEY.

REPORT ON OPHTHALMOLOGY.

BY ALBERT G. HEYL, M.D.,
Ophthalmic Surgeon to the Episcopal Hospital.

(Continued from page 598.)

EYE-INJURY FROM LIGHTNING.

KNIES reports the following. A boy, æt. 10, was struck by lightning while standing at a window. He turned slowly several times round as on an axis, then fell backward to the floor and was unconscious two hours. He recovered consciousness slowly, moving arms and legs. Both eyelids were much swollen, and a great deal of lachrymation existed. Four days later the following was noted: right forehead and temple showed irregularly-shaped scars of

* Increased on March 1 to ℥ij.

burns. These extended along the right sterno-cleido-mastoid and the right side of the body to the foot; incomplete ptosis and diffuse corneal clouding of each side; on each side the eyelashes were burned off; right lens showed broad cataractous stripes running from the equator towards the centre, and a large star-shaped post-polar cataract; fundus could not therefore be examined, but there was absolute amaurosis; left eye showed synechia posterior; beginning cataract in broad stripes; eye-ground normal; vision ½, not improved by glasses; on each side the eye-tension much diminished. Two months later the ptosis had disappeared, the corneæ free from clouding, the right lens completely cataractous, light-perception and projection normal. About five weeks later the right eye was atropined, when the lens was noted to be peculiarly round as if swollen. It was removed by simple linear extraction with great difficulty, with the resulting secondary cataract formation, but vision of C. F. at five metres.

Attention is directed to the following points:

1. The incomplete paralysis of the levator palpebræ, inducing ptosis. Why the frontalis muscle was not likewise paralyzed is not clear.

2. The temporary paralysis of the optic nerve may have been due to the direct injury to it from the electricity. Possibly, judging from a case of Laker's, capillary hemorrhage into the nerve would have been seen had the fundus been visible.

3. The formation of the cataract. This is explained as the result of a powerful contraction of the ciliary muscle induced by the lightning.

It is incidentally mentioned that the cataractous stripe of the left eye vanished completely.—*Graefe's Archives*, vol. xxxii.

EPISCLERAL FARADIZATION.

Eulenburg describes an instrument for this purpose consisting of a small platinum plate eight metres long, six metres broad, fastened to a shaft, and capable of being elevated by pressing on a button attached to a handle, and thus breaking the current at will. The instrument, after a previous instillation of cocaine, is applied to the desired spot, while the indifferent electrode may be placed over the sternum. In this way the eye-electrode has been allowed to remain one to two minutes without any injurious effect, even when induction-currents were applied strong enough to induce contraction of the orbicularis palpebrarum or even the frontalis and corrugator. The author was surprised to find, however, that in no case was there any contraction of the eye-muscles, the eyeball apparently remaining perfectly stationary; he explains this on physical grounds, the distinctively watery constitution of the ball diverting the current, and also, in the necessity of the case, the tendon of the muscle and not its belly being mainly reached by the current. As an exploratory method in eye-muscle paralysis there is not much to hope from the method, but in peripheral ophthalmoplegus it promises to be of value.—*Centralblatt f. Augenheilk.*, March, 1887.

[May not the cocaine instillations benumbing the scleral conjunctiva have had something to do with the failure of the eye-muscles to react?—H.]

AMBLYOPIA AFTER QUININE-INTOXICATION.

Patient, a woman, æt. 42, three weeks after a normal and easy confinement, was seized with violent fever, and for about ten minutes delirious: 15.0 (grs.?) quinine were given; three days later sudden amblyopia occurred; the fever continued about a week, and then a general debility ensued, the amblyopia still continuing. In the course of about a couple of weeks symptoms of melancholia developed, which led to her being placed in an asylum. At this time the patient could count fingers at a short distance. The main ophthalmoscopic change was great thinning of the vessels; color of the papilla normal. Under treatment with strychnine, iron, etc., the reason gradually improved, although the papillæ became very pale and the retinal vessels very narrow, the arteries being scarcely visible. Several months later the patient left the asylum well enough mentally to attend to her business, but with defective sight. Both pupils at this time reacted well to light; media clear; papillæ extremely pale; all the vessels extremely pale, especially the arteries; vision about ⅓, not improved by glasses; visual fields defective above and below. Again for some reason the dose of quinine was repeated, and amblyopia again occurred, which for the next seven weeks increased somewhat, then slowly improved, although it was not entirely relieved.—*Klinische Monatsblätter*, February, 1887: reported by Mellinger.

[It will hardly be doubted, after careful examination of this case, that the quinine was only a secondary factor in causing the amblyopia. The points in the case may be summed up thus:

1. Uterine disturbance of some kind after confinement, with consequent derangement of the cerebral circulation.

2. The dose of quinine which aggravated this derangement inducing not only amblyopia, but also the melancholia.

From some experience in the examination of the eyes of cases of melancholia, the reviewer is satisfied that a certain set at least of such cases are accompanied by changes indicating circulatory disturbance in the brain, and probably in the cortex; and, while not prepared to say that these cases of so-called melancholia are simply a species of congestion of the brain, the latter is nevertheless a very important factor. The practical point about the above case is that quinine, at least in decided doses, should be used with care when the uterine vessels are likely to be in an abnormal condition.—H.]

TRANSLATIONS.

TETANUS FOLLOWING THE OPERATION FOR HYDROCELE.—Dr. Rafael Bueno (Havana) reports the following case. Joseph B. V., native of Oviedo, aged 22, single, waiter in hotel, entered La Beneficia Hospital on the 14th of March, 1887, to be operated upon for hydrocele on right side of two years' standing. On the morning of the 15th the operation was performed, a new nickel-plated Galante trocar introduced, which had been previously disinfected in a five-per-cent. phenic-acid solution; a two-per-cent. phenic-acid ointment was also used. The liquid removed amounted to two hundred and fifty grammes. The injected solution, which was a five-per-cent. carbolized solution, came out the color of milk. When the operation had been completed, the patient was attacked with vertigo and mucous vomiting; they quickly disappeared after he was put in bed and given a small glass of sherry wine. He passed the remainder of the day comfortably; the slight pain after the operation disappeared; he partook of broth twice during the day.

For a week after the operation the case progressed satisfactorily and appeared to be rapidly convalescing. On March 22 the invalid breakfasted well, was communicative and lively, though not yet out of the bed. Some difficulty of deglutition became evident at nightfall, and pain was experienced in the ligamentum nuchæ and dorsal region, without any contracture.

March 23, at 3 A.M. Tonic convulsions of the muscles of the back part of the dorsal region; opisthotonos, trismus, dysphagia very noticeable; pulse 108, temperature normal; copious perspiration. Two hypodermic injections of morphine, one and a half centigrammes each, with one hour interval, caused a temporary abatement of symptoms.

At 7 A.M. Trismus, dysphagia, opisthotonos, gastralgia; slight contracture of the muscles of the abdominal walls. Chloral, gr. xxx, and morphine, gr. $\frac{1}{15}$, were given each hour until relief was experienced.

Later, on the 23d, the attacks were repeated at the end of each half-hour; peaceful slumber betweentimes. The muscular contracture had now reached the thoracic cavity. Pulse 108 during seizures, temperature normal; abundant perspiration; urine normal.

At 6 P.M. he vomited a spoonful of chloral, which was taken by great effort, producing an attack, during which seizure the tongue was cut through by the teeth. Respiration was now performed with great difficulty; a cyanotic appearance of the face was noticeable. Discontinued the administration of chloral by the mouth, and ordered three enemata, two grammes each, to be administered during the night, at intervals of two and a half hours.

March 24. The seizures had become more frequent and intense. The respiration was now impeded, the skin assumed a violet hue, the pulse was irregular; enemas of chloral, one gramme each; friction and massage to the thorax and upper part of abdomen. Death at 11.30 A.M., of asphyxia. Removed bandage, and found the little wound wholly cicatrized, without a vestige of suppuration.

The following reflections were made by the reporter:

1. Operated for hydrocele on 15th of March in the morning; used a new trocar (Galante), which had been thoroughly disinfected by a five-per-cent. phenic-acid solution.

2. Nothing remarkable about the oper-

ation, nor in the progress of the inflammation.

3. The man had not left his bed for a single day.

4. Tetanus made its appearance at nightfall on the 22d, and death from asphyxia occurred at 11.30 A.M. on the 24th.

5. He lived in front of a stable, near a car-depot; and, from sources believed to be authentic, there has not been a case of tetanus in this location for three years.

6. La Beneficia has not had a case in fifteen months until this one. He left the hospital to go to festival and work about the tents; this was in December, 1885.

7. There appears to be no attributable cause for the death in this particular case other than the cold humidity which prevailed at that time, and, above all, the great difference of temperature between the night and the day.

8. If tetanus be due to a microbe, it appears to resist a very strong solution of phenic acid (five per cent.), as is shown by this case. — *Crónica Médico-Quirúrgica de la Habana.*

ANTIPYRIN, ANTIFEBRIN, AND THALLIN.—At the Second Congress of Russian Physicians, held at Moscow, Dr. Anserow discussed the comparative value of some new antipyretics: antifebrin, antipyrin, and thallin. All three appear to act upon the vaso-dilators. The peripheral vessels dilate under their influence, and the temperature of the surface rises,—thus equalizing the temperature of the internal organs and the surface, and permitting heat to escape by radiation. The following conclusions are given:

1. Antipyrin, antifebrin, and thallin all act upon the thermo-regulatory apparatus, and produce their effect by dilating the peripheral vessels and augmenting the circulation in these vessels.

2. They act by the intermediary of the central nervous system.

3. They act not only upon the temperature, but also upon the nervous system, in a manner analogous to hydrotherapy.

4. Antipyrin and antifebrin alone deserve to be employed.—*Bull. Gén. de Thérapeutique.*

LIQUID VASELINE OR FLUID PETROLATUM AS A SOLVENT FOR COCAINE.—Bignon (*Bull. Gén. de Thérapeutique*) advocates a two-per-cent. solution of cocaine in liquid vaseline either as a local application to the eye or for hypodermic use. One drop of this solution will produce complete anæsthesia and dilate the pupil,—dilatation commencing in from thirty-five to forty minutes and disappearing in five or six hours. The accommodation is unaffected even by twice this quantity (gtt. ij of a two-per-cent. solution). A drachm of this may be injected hypodermically as a local anæsthetic for surgical operations, but ordinarily much less will answer if the solution be subsequently allowed to come in contact with the recent incisions during the progress of the operation. The author recommends the use of the alkaloid in this solution in preference to any of its salts, since the latter are difficult to keep and are uncertain in composition.

ANTIPYRIN AS AN ANALGESIC.—Germain Sée calls attention to a new and important action of antipyrin. A watery solution containing fifteen grains to the spoonful may be administered at intervals of from one to four hours, giving from three to six grammes (forty-five to ninety grains) at a dose, in ice-water. Given in this way, the pains are relieved without any unpleasant result, especially upon the heart or great vessels. The remedy acts especially upon the spinal cord.—*Revue de Thérapeutique Méd.-Chir.*

TREATMENT OF CHRONIC BRONCHITIS IN CHILDREN.—H. Roger recommends the administration, morning and evening, of one or two granules of sodium arseniate (gr. $\frac{1}{64}$) given in a cup of milk. Before each meal a dessertspoonful of the syrup of the iodide of starch, containing one grain of iodide of potassium in two drachms of the solution. At the meal sixty grammes of raw meat-pulp beaten up with one or two grammes of pulverized calcium phosphate are to be given with other food.—*Revue de Thérapeutique Méd.-Chir.*

EXPEDIENT IN OBSTINATE EPISTAXIS.—Verneuil recommends a blister applied over the liver in the treatment of rebellious epistaxis unaccompanied by fever. He concludes that "(1) latent and still benign diseases of the liver may cause and keep up obstinate epistaxis; (2) the revulsion obtained by the aid of a large blister placed on the right hypochondriac region appears to be the best means of curing hemorrhages of this kind."—*Revue de Thérapeutique Médico-Chirurgicale.*

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, JUNE 25, 1887.

EDITORIAL.

THE AMERICAN MEDICAL ASSOCIATION.

TWO things were patent to any intelligent observer in attendance upon the Chicago meeting. The first was the magnificent possibilities of such a large and thoroughly representative body of American physicians; the second, the hasty, inefficient, and irregular methods of conducting the work of the general sessions. As at present managed, it appears to be simply an impossibility to ascertain definitely the sense of the Association upon any debatable question. There seems to be no doubt as to the wisdom of the recommendation of the special Committee with regard to the necessity of adopting such a change in the method of selecting the Nominating Committee as will enable it to perform its functions, important as they are, with deliberation and due formality. As an amendment to the Constitution, this will come up for discussion next year at Cincinnati. There seemed to be general regret that it could not go into force at once.

In order that the next meeting shall be distinguished from its immediate predecessors by greater dignity and decorum, the following suggestions are, with due respect, offered to the consideration of the officers, and especially to the Entertainment Committee. In the first place, since all members must pay their dues whether they attend the session or not, let the registration be conducted through the mails prior to the meeting, and the present difficulty in getting registered will be at once avoided. If the lists of delegates were to be sent to the Chairman of the Committee of Arrangements one month before the meeting, he could send by return mail the badge of membership which would enable the wearer to participate in the business of the executive session, and during the course of such executive session no one should be admitted to the floor of the house who is not entitled to be heard or have his vote counted. After the executive session is over, the doors may be thrown open to all who wish to hear the addresses or public discussions. The credentials having been sent in advance, the labor of the Committee on Entertainment will be materially lightened, and invitations to entertainments can be delivered through the post-office, as at present.

A properly-organized Council, in permanent session, would greatly strengthen the Association. There is no need of holding formal meetings, however, with our present telegraph and postal facilities: all its functions can be performed by correspondence or through the Journal as intermediary. It is also a question worth considering whether the provision which prevents permanent members from voting is compatible with the best interests of the Association. In many County Medical Societies the delegates are chosen not because they are the representative members, but because they are new and have never been sent as delegates before. It is true that in this way new members are added every year to the national Association; but it does not seem the height of wisdom to intrust the welfare of the organization to such inexperienced hands, who may fall an easy prey to the medical politician.

Finally, if at the time of registration each delegate were to select one Section with which he desired to connect himself as a member, it would prove advantageous in several ways, and particularly in the election of officers, or in deciding other questions which may call for a vote of the Sections.

THE SPHERE OF THE GENERAL PRACTITIONER.

IN his opening address as President of the recent German Congress of Internal Medicine at Wiesbaden, Professor Leyden discussed in a dignified manner the relations of specialism and general medicine. The scientific specialist, said Leyden in effect, has done much for the advancement of our knowledge of local processes, both physiological and pathological, and of local measures of treatment. The present age is scientific and experimental, and medicine has partaken of the general tendency and has become an experimental science. But the scientific and experimental work in the laboratory, upon which so much weight is placed, and which has unquestionably contributed to exactness in our knowledge, fails to answer the demands of the present, however much it may promise for the future. The living present has claims which the physician must not overlook in his zeal for mathematical exactness in diagnosis and mechanical treatment. It is time to remind the practitioners of our day that the inexhaustible source of all knowledge and progress in medical art is observation at the bedside of the patient. Experiment is one-sided; complete knowledge of disease can be gained only by studying cases.

In the multiplicity of specialties medicine as a whole is in danger of being lost. Internal medicine has itself become in a measure a specialty. The human individual is hardly any longer considered as a concrete whole, as a man. He is an aggregate of organs and cells. Every organ becomes the object of special study and special knowledge. Local examination, local diagnosis, local treatment, is the order of the day.

Against this misleading view Leyden enters a protest. The true function of medical art is not to treat diseases, but to treat persons who are sick. These stricken individuals must be aided in their struggle for existence. This is the duty of the general practitioner. In order to do this intelligently, he must not only be conversant with the nature of the disease-process in certain organs,—for which knowledge he is indebted to the specialist,—but he must also understand and be able to appreciate the influence of the morbid process upon the sick individual. To the cry that general medicine must become more surgical, Leyden returns the answer that the specialties must again become more medical, and thus restore the unity and integrity of general medicine.

"Old truths and old facts are liable to be forgotten," says Leyden, in closing his eloquent address, "and it is not inappropriate to recall them on suitable occasions."

In this paraphrase of the words of one of the leaders of German medical thought we observe a departure from the too exclusively local and experimental methods of the medicine of Germany and Austria during the last thirty years. There is a tendency to return to more philosophical views, such as have dominated French and English medical doctrines, and which have had so large a following in this country.

It is this tendency to which we have striven to give effect in the columns of this journal. While recognizing the importance of specialists and special study, we have always insisted upon the paramount necessity of the combining, unifying, and vivifying influence of the knowledge derived from observation at the sick-bed. The appreciation of the grand truth that "all medicine consists in observation" will restore to general medicine and the general practitioner the pre-eminence they deserve. This will likewise react favorably upon specialism, and the specialist will be, in the words of the lamented Hodgen, "a physician and something more," instead of, as is now too often the case, "something less than a physician."

THE ILLNESS OF THE CROWN PRINCE OF GERMANY.

AS the medical journals have taken up the malady of the Crown Prince of Germany for discussion, we give our readers the following statement from a leading physician of London, who is in a position to be thoroughly acquainted with the facts. It is not a "cablegram," but an extract from a private letter to the Editor:

"The Crown Prince had measles a year or more ago: he caught cold last winter and has been hoarse since. Gerhardt found a small growth on the left vocal cord in March, and the electro-cautery was used with temporary benefit. The hoarseness, however, grew worse and the growth larger while the Crown Prince was at Ems. Bergman, Wegner, and Tobold saw him when he returned to Berlin, and advised thyrotomy. Everything was arranged for the operation, and it was the intention to perform thyrotomy and to be guided by the appearances found, and, if necessary, to perform resection of one-half the larynx. The Crown Princess, however, had been in communication with the Queen, who sent over Dr. Morell Mackenzie. He saw the growth, and stated that he could remove a portion for examination. This he did with intra-laryngeal forceps, tearing away a portion of the vocal cord along with the scrap of growth. The greater part of course remains, the whole having been the size of a split pea, and lying immediately on the under surface of the left vocal cord. Virchow thus had a portion of growth involving its whole thickness, and after examination he said that it was not malignant, and he ought to know, though the general opinion seems to be that the prognosis is very bad."

THE ASSOCIATION OF AMERICAN PHYSICIANS held its Second Annual Meeting at Washington on the 2d and 3d instant. Our report of its proceedings has been forced to lie over until the next issue.

NOTES FROM SPECIAL CORRESPONDENTS.

LONDON.

THE General Medical Council has held another session, the second this year. Sir Henry Acland, who has been its president for thirteen years, retired, and was succeeded by Mr. John Marshall, who a few years ago resigned the chair of Surgery at University College, London. I have already in previous letters mentioned the controversy which has raged all through the past winter anent the Apothecaries' Society of London. The act of Parliament passed last July renders it obligatory upon every student to pass an examination in medicine, surgery, and midwifery before obtaining a license to practise. The Apothecaries' Society had no power to examine in surgery, and consequently, unless the difficulty were overcome in some way, its examinations would cease to have any value. The Society accordingly at first applied to the College of Physicians and Surgeons to admit it to the Conjoint Board; this being refused, it next applied to the General Medical Council to appoint examiners in surgery for it: this the Council did, after discussing the question and a great many side-issues for four days. The curious result flows from this that the despised license of the Apothecaries' Society becomes in a certain sense a state license, because part of its examination will be conducted by examiners appointed by the General Medical Council, which is in reality a Committee of the Privy Council. The licentiates will not be slow to take advantage of this.

The death of Dr. Wilson Fox, Holme Professor of Clinical Medicine in University College, took place on May 3, after a few days' illness. Dr. Fox was a power in the profession by reason not only of the important appointments which he held, but also on account of his upright and generous character: a man sensitive in the point of honor, enthusiastic in every piece of work to which he put his hand, he earned the affection and esteem of colleagues, pupils, and patients by the singular charm of his sympathetic manner and the perfect sincerity of his conduct. Dr. Fox was educated at University College, and became Professor of Pathology there in succession to Sir William Jenner in 1861. For the last twenty years he has been the Professor of Clinical Medicine, and in this capacity every student has passed through his hands. He was a painstaking teacher, who left no point which could elucidate his cases untouched; the care which he taught his pupils to bestow on the smaller details which contribute so much to a patient's comfort was one of the most valuable lessons they learned from him. In early life he gave a great deal of attention to the study of tuberculosis: the view which he consistently held, when it was far from popular,

was that tuberculosis was a special pathological process, to be sharply distinguished from chronic inflammation. An erroneous interpretation of certain experiments on animals, however, led him to believe that the process was not specific: to this is due the non-appearance of his great work on phthisis, for which he had for many years been making preparations. Dr. Fox was a physician-in-ordinary to the queen, and was in the enjoyment of a very large consulting practice as a physician, and, if he had survived, the very highest honors which the profession in England has to give would undoubtedly have been his.

The close resemblance to be traced between certain forms of sarcoma and chronic inflammation has struck many observers, and it has frequently been suggested that some etiological relationship must underlie this anatomical and clinical similarity. A striking instance is afforded by the diffuse sarcomata of the spinal pia mater, of which a few cases are on record. Dr. W. Pasteur recently reported to the Pathological Society two additional examples of this curious disease. The symptoms resemble those produced by chronic spinal meningitis, and in the only case of the kind which I have seen this diagnosis was made by a very eminent neuropathologist: after death the spinal cord is found to be embedded in a mass of sarcomatous tissue which extends the whole length, and completely fills up the space between the bony canal and the cord. The nervous tissue shows no structural changes, except where here and there it is invaded by the new growth; the naked-eye appearances are of course very different from those produced by chronic inflammation, but the microscopical elements have a great resemblance, the fundamental difference being that in the sarcomata there is no tendency towards organization or retrogression. At the last meeting of the same Society a closely-related question was raised by Messrs. Shattock and Ballance, who reported the results of some experiments made with malignant tumors to ascertain whether any vegetable parasites were present. In every case where sufficient precautions were taken to exclude contamination by material on the surface of the growth exposed to the air, where of course micro-organisms swarm, the tubes inoculated with the portions of tumor remained quite sterile. The experimenters, however, were by no means inclined to abandon the parasitic theory of the origin of malignant growths on account of these negative results: their view appeared to be that the parasite was probably not surrounded by proper conditions for culture or had become devitalized.

Headache is one of those smaller evils which sometimes make existence almost intolerable, and yet it must be confessed that remarkably little help in its treatment is to be derived from a perusal of text-books or encyclopædias: that it is generally symptomatic will be universally admitted, but ignorance of ultimate causes is still so complete for a large proportion of cases that a paper communicated to the Royal Medical and Chirurgical Society by Dr. Alexander Haig will be read with interest. He seems to have well worked out the relation of a certain form of headache, which may be called the gouty headache, to the excretion of uric acid. The headache could be brought on by eating meat and cheese, and he found that there was retention of uric acid before the headache, excessive excretion during the headache, and diminished excretion after the headache. Whether there is merely retention or also excessive formation would be an interesting point to determine, but this could not be ascertained. The amount secreted during the headache was greatly in excess, and more than accounted for the retention which occurred during the headache, but the amount excreted after the headache was diminished, and the diminution before and after just balanced the excess during the headache. Dr. Haig thinks that there is temporary excessive formation, and that this accounts for the good effects of salicylate of soda, which diminishes the formation of uric acid; a meal also has a good effect by increasing the alkalescence of the blood. This last observation appears to be of special interest, because it appears to be a general custom to attribute headaches which are relieved by food to "cerebral exhaustion" or "neurasthenia."

Very conflicting accounts are to be heard and read of the value of Dr. Bergeon's treatment of phthisis by the injection of sulphuretted hydrogen into the rectum, and this although the process has not been very extensively used. One physician will say that it is the greatest advance ever made in pulmonary therapeutics, another that it does no good, and a third that the slight amount of benefit does not compensate for the disagreeableness of the operation. The eccentricity of the method, so to say, repels many, but the theory upon which it is founded is ingenious, and nobody seems to be inclined to dispute the main fact upon which it rests,—namely, that sulphuretted hydrogen and carbonic acid in the intestines are carried away by the portal circulation and immediately excreted by the lungs.

At the last meeting of the Ophthalmological Society, Mr. Lang advocated the insertion of an artificial globe into Tenon's capsule, after excising the eye, as a substitute for Dr. Miles's operation of evisceration, with insertion of an artificial vitreous. The operation was originally suggested by Mr. Adams Frost at the Brighton meeting of the British Medical Association last year. The globe is enucleated, the four recti are then held apart, a glass sphere is introduced into Tenon's capsule, and the tendons, capsule, and conjunctiva are united over it. Mr. Lang reported that suppuration had not occurred in any of the six-

teen cases in which he had performed the operation: this he attributed to the antiseptic precautions used,—that is to say, irrigation before and after excision and at the end of the operation.

Dr. Lewers has reported to the Obstetrical Society the condition of the pelvic organs in one hundred cases, as nearly as possible consecutive, of women whose bodies were examined after death at the London Hospital. Disease of the Fallopian tubes, restricting the expression to pyosalpinx, hæmatosalpinx, and hydrosalpinx, was met with in seventeen out of the one hundred cases examined. Dr. Galatin stated that the proportion was much smaller at Guy's Hospital. It had been found there that in three hundred and two cases there were of chronic inflammatory disease about the tubes nine per cent., distention of tubes four per cent., and that death could be indirectly traced to pelvic inflammation in about two or three per cent. It ought to be added that fourteen out of the seventeen cases observed by Dr. Lewers were women over forty years of age, whereas the majority of the women upon whom Mr. Lawson Tait has operated have been twenty-seven or thirty years of age.

The medical staff at Guy's Hospital has been depleted so much during the last few years that it became necessary for the Governors to take some decisive step to bring it up to its full strength. Vacancies for two or three assistant-physicians were accordingly declared, and physicians unconnected with Guy's were invited to apply; no less than twelve applied, in addition to two physicians connected with Guy's; both of these latter—namely, Dr. G. N. Pitt, the Medical Registrar, and Dr. L. C. Wooldridge, the teacher of practical physiology—were appointed, and one outsider was chosen; the fortunate candidate was Mr. E. C. Perry, who had recently taken his degree in medicine at Cambridge, after studying at the London Hospital; he was selected probably because he was Senior Classic in 1880.

At St. Thomas's Hospital also two appointments have been made, both Dr. W. B. Hadden and Dr. Theodore Dyke Acland having been appointed assistant-physicians; both are already well known, the first as a neurologist and the second chiefly for his bacteriological researches.

Owing to the death of Dr. Wilson Fox, Sir William Gull becomes physician-in-ordinary to the queen, and Dr. James Reid, who has been for some years the resident medical attendant on the queen, has been appointed a physician-extraordinary.

DAWSON WILLIAMS.

THE Legislature of Pennsylvania has given twenty-five thousand dollars to the Medico-Chirurgical Hospital of Philadelphia.

BOSTON.

THE Massachusetts Medical Society held its One Hundred and Sixth Annual Meeting in Boston, June 7 and 8, with an attendance and interest fully up to the average. The total membership is now sixteen hundred and sixty-one, ninety-five new members having joined in the last year, and twenty-six having died. As usual, the Massachusetts General and Boston City Hospitals were thrown open to visitors, and operations were performed in the amphitheatre. At the latter hospital there were several capital operations. The programme of the meeting on Tuesday, the 7th, included papers on "Tumors of the Bladder," by Dr. George W. Davis, of Holyoke; "Cases of Burns, with Special Reference to Complications, Sequelæ, and Treatment," by Dr. J. E. Cleaves, of Medford; "Laparotomy for Pus in the Abdominal Cavity, and for Peritonitis," by Dr. John C. Irish, of Lowell; "Fracture of the Spine: its Immediate Treatment by Rectification of the Deformity and Fixation by Plaster-of-Paris Jacket," by Dr. H. L. Burrell, of Boston; "Observations on the Puerperal Pelvic Ligaments," by Dr. S. W. Driver, of Cambridge; "The Relation of Tea-Drinking to Disorders of the Nervous System," by Dr. W. N. Bullard, of Boston; "Pulmonary Tuberculosis as a Sequel to Ordinary Pleurisy with Effusion," by Dr. H. F. Vickery, of Boston; and "The Surgical Treatment of Empyema," by Dr. M. H. Richardson, of Boston. At the meeting on Wednesday other papers were read, on "A Contribution to the Study of the Etiology of the Summer Diarrhœa of Infants," by Dr. H. C. Haven, of Boston; "Sepsis and Antisepsis in Summer Diarrhœa," by Dr. S. A. Potter, of Roxbury; "Training Nurses," by Dr. Alfred Worcester, of Waltham; and "The Value of Public Health Measures to the State," by Dr. S. W. Abbott, Secretary of the Massachusetts State Board of Health.

The paper of Dr. Abbott was one of marked interest, being based largely on data gathered and compiled by the writer in his official capacity. The decrease in the mortality from the so-called preventible diseases in the years since sanitary science has been practised in the cities and towns of this State was strikingly shown in the case of typhoid fever, cholera, and smallpox, but not in diphtheria, which seems on the whole to be upon the increase, as are also developmental diseases like cancer and some local affections. The increase of the average age of the population at death during the last decade was shown by charts to be actual, but not great, for every class in the community.

At the conclusion of Dr. Abbott's paper a discussion was opened by Dr. Henry I. Bowditch, one of the original members of our State Health Board, who spoke with great earnestness on the subject, particularly with reference to the duty of the State towards the

physical training of the pupils in our schools. He deplored the present lack of attention to this important subject on the part of educators. The military drill, the only attempt towards meeting this requirement in Boston and many other cities, was characterized as inadequate, if not positively harmful. Dr. Bowditch had lately seen a West Point cadet with one shoulder lower than the other, and it is well known that there the most careful gymnastic training is given to overcome the defects and dangers of this one-sided and at best cramped exercise.

Other speakers followed in the same strain. One had seen two deaths from phthisis in young women who had gone to teach in a school-house which, after proving the source of much sickness, was found to have had all the time some eighteen inches of water in its cellar.

A committee of three was appointed to investigate the general subject of physical training in public schools, with special reference to what has been successfully done elsewhere in this matter, and to report at a future meeting a plan feasible and adapted to the needs of children of both sexes. The recommendations of this committee are, it is understood, to be laid before the State Board of Education, with whatever of influence the weight of the Society may bring to bear.

The Annual Address was delivered by Dr. George J. Townsend, of Natick, on "The Massachusetts Medical Society: its Relations to Medical Progress and to the Community in which we practise." It showed the true function of a medical society, and vindicated the profession from the charge of sectarianism in medicine, showing that the regular physician was not a "-path" of any kind, and did not belong to any "school," least of all to an "old school."

The members of the Society then sat down to their annual dinner, which was presided over by Dr. William L. Richardson, of the Harvard Medical School. Speeches were made by the President of the Society, Dr. Thomas H. Gage, of Worcester, His Excellency Governor Ames, Hon. George M. Stearns, United States District Attorney, Rev. Brooke Hereford, Professor J. P. Reynolds, Colonel T. W. Higginson, Roger Wolcott, on behalf of the Trustees of the Massachusetts General Hospital, Mr. Hodgson, of the English Society for Psychical Research, and others.

Dr. J. S. Billings, of Washington, delivered a course of lectures on "The History of Medicine" before the students of the Harvard Medical School during the spring. The course was attended by many physicians as well as students, and was found to be of much interest. Dr. Billings also gave two lectures while here to the students of the Massachusetts Institute of Technology. It is reported that the same gentleman may be heard here again next winter in a course before the Lowell Institute, which is one of our most valuable institutions, having an income sufficient to pay liberally for several lecture-courses during each winter from men the most competent in the world to speak on their several departments of knowledge.

The Washingtonian Home, a most valuable institution for the care and cure of inebriety, under the charge of Dr. Albert Day, has just made its report for the current year, showing three hundred and seventy-nine patients treated, at a cost of $12,240.07. This sum was met in great part by payments from the patients, many of whom are men in fair standing socially and financially, who, finding themselves in danger, voluntarily put themselves where for a time they will be removed from temptation, or where they can be sure of good treatment and secrecy while recovering from the effects of a debauch. There were during the year ninety-nine cases of delirium tremens, with only one death. About three-fifths of the patients were married men, and nearly all were residents of this State.

C. F. W.

THE GERMAN CONGRESS OF PHYSICIANS.

(Continued from page 605.)

PROFESSOR LITTEN, of Berlin, contributed a paper on the subject of the *Connection between Disease of the Stomach and Change of Position of Right Kidney.*

The fact that distention of the stomach (ectasia) occurs in connection with dislocation of the kidneys, the so-called wandering kidneys, is not new. The only question is if this stands in a causative relation with the other. The change of position of the kidneys is dependent on mechanical causes; in women it is often occasioned by too tight lacing. The speaker then related such cases of dislocation as had not yet appeared in literature. He has made the observation that the ectasia of the stomach occurs frequently in connection with dislocation of the kidneys in laborers, masons, railroad and street navvies, whose mid-day meals often consist of indigestible food, are eaten in a very short time, —in fact, devoured without form. He also found two women among his patients who were able to take their meals quietly. Out of twenty-six cases of stomach-distention observed by him, in seventeen dislocation of the kidney was present; this brought him to the belief that the stomach-distention is the cause of the dislocation of the kidneys. In the other cases the renal arteries are probably too short, so that on this account the kidney cannot escape. The greater or less movability of the kidneys depends upon the more or less tightness of the arteries. In closing, the speaker went into detail concerning

his findings in post-mortems of such persons as had distention of the stomach with wandering kidneys.

Professor Nothnagel, of Vienna, opened the discussion. He was acquainted with the frequent coincidence between distention of the stomach and dislocation of the kidney, but disputed, however, the causative connection. He had in a period of three months found sixteen such cases. The stomach-distention in many instances was primary, the dislocation of the kidney secondary. He did not know, however, if stomach-insufficiency was able to cause movements of the kidney. The greater number of dislocations occur in broken-down, nervous women. The speaker would like to point out the first case where dislocation occurred, then distention. He reported a dislocation of the kidney of a remarkably high degree. He then dealt with the treatment of this disease. He placed lean persons first on the malt cure, then placed a cushion over the kidney to hold it in position, and a waist over the cushion which covered the whole body.

The Cure of Neuralgia by means of Cataphoresis.—Professor Adamkiewicz, of Cracow, read on this subject. The reader had already in a former article expressed the opinion that by means of an instrument devised by himself, and called "diffusion electrode," chloroform could be put through the skin of a man until he was thrown into the deepest cataphoresis. He then reported the results obtained by this proceeding in the treatment of neuralgia. The diffusion electrode should be connected with the positive pole of a constant battery, and without current placed upon the painful part. Now the current should be closed, and gradually increased to seven M.a. It should be held at this height for two minutes, then slowly brought down to nothing. From this kind of an application the speaker had never seen any evil consequences. He had never observed the formation of eschars, but had found that cataphoresis cured the neuralgia in all his cases, and that the cure followed more promptly the more recent the case. The nerves having a superficial course he found could be cured much easier when the conditions were favorable. Four, indeed one sitting may be enough to completely remove the complaint. In chronic neuralgia the cataphoresis cure shortens the duration of the attack, weakens its intensity, and can for a longer or shorter time bring it under control. Those neuralgias which depend on a lesion which cannot be reached by the cataphoresis are very unfavorable for its definite action.

Professor W. Lowenthal, of Lausanne, and Docent Rumpt, of Bonn, took part in the discussion. The last made a few objections, but was not prepared to change the results of the essayist's exact investigations and good observations.

The Etiology of Typhus.—Professor A. Fraenkel, of Berlin, made an address on this subject. This was discussed for a short period with considerable vigor. The discussion was concerning the infectiousness of the disease.

Professor Finkler, of Bonn, read a paper on *Observations on the Mode of Contagion and Treatment of Typhus Abdominalis* (*Typhoid*).

Among the purely contagious diseases are smallpox, scarlet fever, and diphtheria. A pure miasmatic disease is represented by malaria. Between these two we now place a third class, termed contagio miasmatica, to which we refer cholera and typhus abdominalis. It is partly believed that typhoid is not carried directly, but the germ coming from a diseased person attains a certain ripeness in the soil, then is able to generate the disease in another person. The knowledge of the quality of bacteria, and especially of those which would seem to be the generators of typhoid, goes to show that this indirect spreading does occur. It appears that this is the rule, and direct infection is entirely denied by many. Recent observations prove the infection is carried by many different kinds of vehicles. An excellent example is the epidemic in Mayence in 1884, which was undoubtedly carried by artificial mineral water (according to Dr. Helwig); also an epidemic in Cologne which was carried by means of milk from a certain infected dairy; also the epidemic in Triberg, Black Forest, from the water of a certain brook. All these epidemics are proofs of this kind of contagion, and it has been very difficult to bring proofs of a direct contagion. Again, it is true that different epidemics possess different forms of contagiousness. In 1885–86, a severe epidemic took place in Bonn. A woman went to Eisel and attended her children who were ill with typhoid. After their recovery she returned to Dollendorf on the Rhine, and fell ill with the disease herself. She gave it to the woman who attended her, and so on, until in nine months fifty cases occurred among the fifteen hundred inhabitants of the town. The spreading did not seem to take place by means of the water which flowed through the village, but through the mingling of people together. Three patients from Dollendorf were taken to the Klinik at Bonn, and started an epidemic there. Here the infection was quite direct, partly through the washing (one out of three washerwomen took the disease). On the other side, the sisters, by taking a child ill with typhoid from a damp house to Königswinter, carried an epidemic there into the hospital among the nurses and sisters, which, however, was soon over, but broke out again with great severity eight months later from the opening of a dung-hill into which mattresses, etc., from the patients' beds had been thrown. The germ by remaining in the soil can take on virulence and hold its life for a long time. Typhoid is not confined to certain parts of the earth; it can be carried into a city like Wiesbaden, otherwise

so favored as to health, and disturb this security. From numerous examples we know that if the nest in which the germs are resting is destroyed the epidemic will be cut off for all time; and from this fact it must be believed that there is a difference between the medium which spreads the disease and the source of infection.

Professor Fleischer, of Erlangen, gave experimental contributions on the pathology of the kidneys. They consisted of numerous experiments on a dog.

Dr. Kuhne, of Wiesbaden, read a treatise on the appearance of the spiro-æchten form of the comma bacillus of Koch in the tissue of the intestine in cases of cholera, with demonstrations of different fluorescent preparations. The speaker had examined a great many specimens from the epidemics of Paris and Palermo when he accidentally came upon this variety. After discussing the comma bacillus *in extenso*, he closed by recommending his method of coloring to find the bacillus in the tissue. He then gave different methods of his own to bring to view the bacillus in the internal organs in typhus, lepra molleus, etc.

Dr. Fränkel, of Dornheim, read on *The Permanent Inhalation of Fresh Air*, a treatise on the prophylaxis and therapy of lung-affections.

Professor Von Moring, of Strasburg, read on diabetes mellitus, on which disease he is a well known authority. He related how he had given a dog diabetes mellitus by means of phloridizine, and gave some excellent observations, which he was well able to make.

Professor Leube, of Würzburg, thanked the reader heartily for his most excellent paper, and hoped the dark subject of diabetes mellitus would now be brighter.

Dr. Cahn, of Strasburg, spoke on the acids in carcinomatous stomachs. This was followed by an earnest discussion, taken part in by Professor Riegel, of Giessen, Professor Fleischer, of Erlangen, Professor Von Noorden, of Giessen, Professor Von Mering, of Strasburg, and Dr. Stuckel, of Cologne.

Professor Leyden, from the chair, asked for themes for the next Congress, and gave the information that Professor Fürbringer, of Berlin, would offer a paper on the subject of the treatment of abdominal typhus. Professor Binz, of Bonn, would read on the subject The Application of the Spiritus Vini in Therapeutics. The secretary, Dr. Emil Pfeiffer, of Wiesbaden, read the reports of the various committees, saying that the executive committee had chosen Wiesbaden as the place of the next meeting. The number of members at the last meeting was two hundred and nine, died seven, leaving two hundred and two at the beginning of this Congress. Twenty-three new members were added, making two hundred and twenty-four, an increase of fifteen. The number of these present at the Congress last year was two hundred and thirty-four, this year two hundred and forty-nine.

Professor Franz Liebenstein read on the subject Muscular Exercise or Quiet for Heart-Disease. After enforcing that proverb of Professor Hoffman's, forbearance and exercise, the reporter said that the majority of the clinicians and physicians held out firmly against a more active treatment of chronic heart-disease through exercise of the heart-muscles, and insisted that above all things all acute cases, also those where an over-distention of the heart had occurred, must be handled with care. Quiet does not, however, improve the chances of the patient, while a reasonable nourishment combined with exercise properly carried out causes a strengthening of the heart-muscles. In all chronic cases we should change from quiet and care to the endeavor to strengthen the heart-muscles by exercise. From his rich experience the reporter felt sure strong yet quiet movements, with quiet exhalations of air, work towards strengthening and slowing the activity of the heart, as has already been made known by Schott, of Rauheim. In cases where the kind of failure is that of performing the work required in complete contraction, the distended ventricle is never entirely emptied, and the heart-muscles become weary and in the end incapable of performing their duty. Then by means of quiet but energetic muscular exercise the heart is strengthened, stirred up to effectual contraction, and at the same time the diastole grows in consequence of the slowing of the pulse. The increase of the arterial blood-pressure acts on the vagus centre, more of the distended blood is forced out of the heart, and thereby the cause of the dilatation removed. Further, the rapidity of the blood-stream increases in consequence of the increase of the arterial pressure. Then after a number of strong contractions this acceleration goes through the capillaries and the veins, and a better distribution of blood takes place throughout the entire vascular system. The improvement in the quality of blood lightens the work of the heart-muscles, and in consequence of the stronger stream in the coronary arteries the weakening remaining products are more promptly removed. For patients in the first stages of fatty heart, or with well-compensated heart-failures, every form of German or Swiss gymnastic or mountain-climbing can be recommended. The speaker warned his listeners against over-exertion, and said that each performance should be followed by a sufficient period of repose. Those failures, however, which have no compensation or have lost it must first pass through a period of quiet and forbearance, then by well-measured work commence to improve the activity of the heart. The watchful control of the physician is necessary, and only the most quiet forms of muscular labor are fitting. The Swedish method

improved by Schott, brief and under medical control, interspersed with pauses for quiet, is to be recommended. On the ground of his experience of the last few years, the speaker advised the Oertel cure for chlorotics, but above all things with the greatest care and not to leave it to the patient himself. The heart should not be allowed to be more rapid in its actions than the lungs can follow, for deep, quiet breathing has a lightening influence. He closed with the wish that the therapy of chronic heart-disease would be placed on the list of subjects for discussion in the Congress.

Dr. Theodore Schott, of Bad Neuheim, recalled the fact that his brother, now dead, had recommended strong but quietly-carried-out movements with regular breathing as a method of cure in chronic heart-disease. The mountain-climbing method of Oertel the speaker could not sanction. It is useful only for a very small number of patients; we cannot say when we may commence with this treatment, or how high or far the patient shall be allowed to climb. There is always decided danger connected with this plan of mountain-climbing, and the doctor had seen harm done to patients treated in this manner by Oertel and his disciples. It is better far to first strengthen the heart-muscles by means of baths, gymnastics, etc., so that it can stand the greater labor required for mountain-climbing. In other cases the danger incurred by climbing is too great, but this can be determined by the pulse-rate.

Professor Leyden, of Berlin, remarked that the mode of treatment originated by Oertel had given valuable therapeutic material and was also an advance. He advised great care in deciding which cases of heart-disease could be improved by the gymnastics and when it is to be used. For light cases in youth, in which a valvular insufficiency can be compensated, careful gymnastics may be used. The President then recalled the fact that the method of Stokes had met with great objections, and was of the opinion that in the very difficult question, what influence movements, gymnastics, and mountain-climbing have on the heart, the deductions are still arbitrary in many points. He closed with the expression of the hope that in one of the Congresses not far in the future there would be sufficient material on hand to explain this weighty and difficult chapter.

Professor Schultze, of Heidelberg, reported numerous cases of acute disease of the central nerve system in which the general anatomical changes fail and we must decide on a diagnosis of meningitis.

Professor Friedrich Mueller, of Berlin, read on the resorption of food in certain diseases.

Professor Leyden then made a few short closing remarks, in which he expressed great satisfaction with the work of the Congress and hope for its future advancement.

Adjourned to meet in Wiesbaden a year hence.

PROCEEDINGS OF SOCIETIES.

AMERICAN MEDICAL ASSOCIATION.

IN accordance with the programme, the Thirty-Eighth Annual Meeting of the Association convened in Chicago at 11 A.M., June 7. As usual, it continued four days; its general sessions occupying each morning, while the several Sections devoted the afternoons to their proper work, except the final afternoon, which was appropriated to a visit to the city of Pullman. The evenings were filled very agreeably by the Entertainment Committee with numerous receptions at private houses of the leading citizens, both physicians and laymen, a general reception being given on the evening of the second day by the profession of Chicago, at the armory of Battery D, on Michigan Avenue. The general sessions were held in Central Music Hall, which was convenient, comfortable, and well adapted to the purpose. On the contrary, the places appointed for the various Sections were widely separated, giving rise to considerable inconvenience and causing a reduction in the attendance upon their meetings. There was no lack of papers, and those read were fully up to the standard of former sessions, and many of them were such as to reflect credit upon American medicine. The number of delegates and permanent members in attendance was about twelve hundred. No serious differences of opinion were brought out in the discussions; evidently the enemies of the International Medical Congress had concluded to contribute to the harmony of the meeting by remaining at home.

Among the features of the session were the daily issues of the *Medical Standard* and the *Medical Journal and Examiner*, each of which published interesting reports of the work of the Association of the day preceding. These were distributed gratis to the members each morning. This is an instance of enterprise highly creditable to the editors, and in keeping with the energetic and progressive spirit of the place.

First Day's Proceedings.

Dr. Charles Gilman Smith, the genial Chairman of the Committee of Arrangements, called the meeting to order, and the session was formally opened by prayer by the Rev. S. J. McPherson. Dr. Smith then introduced the Mayor of Chicago, Hon. J. A. Roche, who delivered a brief address of welcome. The report of the Committee of Arrangements was read and adopted. Ex-Presidents and Vice-Presidents of the Association were requested to find seats upon the platform, and, as they did so, were greeted with applause.

Dr. P. H. Millard, Vice-President, of Stillwater, Minnesota, was called to the chair by

the President, E. H. Gregory, M.D., of St. Louis, Missouri, who proceeded to deliver

THE ANNUAL ADDRESS OF THE PRESIDENT.

"Cell-Antagonism" had been selected as the principal subject of the Address. In the mind of the speaker, cell-antagonism is life. It forms "the foundation of symptomatology and pathology; conjoined with cell-changes, the basis of pathological anatomy, embracing at once the universe of life and all the possibilities of life, disease being but one of the multitudinous phases of life." In the cells resides the force of "vital resistance" which forms the basis of therapeutics,—the real *vis medicatrix naturæ*.

In pathology, organizable fluids are no longer recognized. Cell-potency, cell-subtlety, and cell-antagonism constitute the pith and marrow of medical science. Inflammation is practically a struggle between irritant bodies and white blood-corpuscles. Where pus is found, it is the result of the intrusion of some noxious agency, some contagion, some pestilence: in short, a specific cause, a bacterial invasion.

Cell-antagonism implies a struggle. The duration of the struggle is determined by the quality of the irritant and the strength and resources of the antagonists. Acute inflammation is a sharp and decisive action; chronic inflammation is slow and indefinite. There are two striking important chronic conditions: the interstitial inflammation and the infective granulomata,—interesting alike to the physician and the surgeon. Both are alike disastrous: interstitial inflammation destroying by cicatricial contraction, infective granulomata by stopping at the fibroblast stage,—retrogression replacing development. The quality of infection and the failure to develop beyond the stage of granulative tissue is the exact condition as illustrated by tuberculosis, syphilis, lupus, etc., in contrast with which is fibrosis of the liver, cirrhosis, fibrosis of the kidney, Bright's disease, fibrosis of the brain, sclerosis, interstitial inflammation destroying the tissue-elements by strangulation, and infective granulomata by contamination.

Again, the two varieties of inflammation referred to declare that the quality of the irritant determines the effect of the inflammation,—the interstitial variety being caused by physical agency, and the infective by a vital one. Cells antagonize physical causes without losing any of their vital qualities. Not so when cells antagonize vital causes. When cells are pitted against cells they may be despoiled of their highest quality, as in the infection granulomata they have parted with formative activity. In short, the knowledge that pertains to the presence of a vital irritant epitomizes all that has been taught of infective disorders. The symptomatology and pathology of this class of diseases is but the life-history, the play of cell-activities, metabolisms, and catalyses of antagonizing organisms; likewise the knowledge pertaining to the presence of a foreign body or physical irritant is the knowledge in brief of fibroses and in general of the entire class of disorders known as interstitial inflammation. A persistent irritant—injury—with its attendant concentration of leucocytes, their inevitable development and ultimate transformation, the history of the capsulation of a foreign body, whether it be animate or inanimate, is the history of cirrhosis of the liver, fibrosis of the lung, morbus Brightii, atrophy of the heart, atrophy of voluntary muscles in general, sclerosis of the brain and bones: in short, diffuse capsulation. Some disseminated irritant, say alcohol, determines a sclerosis of the liver, and how? Every particle of alcohol being a foreign particle, having its capsule, it follows that capsulation is as uniformly distributed as the cause. An artisan inhales fine particles of steel or other foreign material, and fibrinosis of the lung is the consequence. The irritants of gout and rheumatism are lodged in the kidney, the interstitial tissue of the organ increases, and in the end strangulates the tubules and Malpighian bodies, resulting in shrinking and total disorganization of the organ, constituting Bright's disease. Like changes occur in the heart coincident with the development of the interstital fibrous tissue, as atrophy of the muscular substance, substituting a fibrous induration for its normal structure. A similar change in the voluntary muscles occurs in the curious disease known as pseudo-hypertrophic paralysis, chiefly afflicting children. The connective tissue between the muscular fibres increases so much that the muscles affected may exceed their normal size three times. Later, however, the new tissue shrinks, and the contractile material of the muscles is spoiled. The condition of sclerosis in bones corresponds to cirrhosis of the liver and Bright's disease of the kidney. In the nerve-centres the interstitial tissue — neuroglia — takes on the same chronic over-growth, strangling the nerve-strands and cells, giving rise to the most singular and complicated nervous phenomena. The changes thus induced are recognized by the general term sclerosis. If it involve the fascicules of Burdach and the column of Goll, locomotor ataxia results; if the medulla, bulbar paralysis, etc.

He had purposely avoided reference to diathesis, as also to the precise neurological relationship of cells, not because he denied their influence, but because too little is definitely known. On the contrary, the behavior of cells relatively to irritants is well understood. The presence of a foreign body is at once and directly resisted by the leucocytes, a zone of inflammation, its destruction, transportation, or capsulation; even parasites which resist the death-dealing assaults of the

leucocytes are at last imprisoned in cases of fibrous tissue.

There yet remains for our consideration a mysterious possibility relating to cell-life of great practical moment: that of entering upon a life of independence, separating from the central nervous system "head-quarters," disregarding the "field-telegraph," oblivious to the morning "drum-beat," and wholly ignoring the restraining and directing influence of environing structures. We have learned that however much irritation may affect the vital qualities of cells, their fidelity is always preserved, there being no sign of disaffection, the army ever intact, the fealty of the soldiers supreme. Physical causes—traumatism—may crush or impair the tissues, but the cells come to the rescue with all vigor and directness. The prolonged presence of bacteria may impair the forces of the cells, enfeeble and extinguish them, but as long as life lasts their efforts are in harmony with the purposes of the organism. Thus it appears that alienation is not possible through the agency of irritation, however intensified, modified, or prolonged.

The question constantly obtrudes, Is alienation possible to a mature element, to an element that has assimilated itself physiologically as well as anatomically with the surrounding tissues, taking part in its functions, concurring and co-operating in all the processes of the economy? This question seems to have confronted Cohnheim when his ingenuity suggested the embryonal hypothesis,—viz., that the tumor-germ was congenital; that there were in the mature body embryonal elements and tissues not utilized in the elaboration of the normal structures: latent embryonal elements, small embryonal cells so diminutive as to elude observation, inactive perhaps till some exciting cause awakens activity. Is not an embryonic element in a mature organism an alien? Is it not already an independent element? Are not the patches in the skin, pigmented moles, islands of cartilage in mature bone, congenital angioma, etc., independent structures, already tumor-germs, congenital rudiments of tumors? Accept the hypothesis of the great German pathologist, and the problem of tumor-etiology is almost solved; it remains only to find the exciting cause; the predisposition is inherited; irritation, simple or otherwise, may be nearly allied to the awakening impulse. The difficulty is to reconcile cell-antagonism with the proposition this doctrine includes: the idea that all discordant bodies are treated as intruders, either ingested, transported, or covered up. We can conceive the possibility of the existence of an inoffensive tissue or element, one that simply draws its nourishment from adjacent tissue without any serious disturbance of their normal metabolism. We would gladly adopt the theory of Cohnheim which ascribes the origin of tumor-neoplasms to persistent germinal rudiment. Certainly it has much to recommend it. Countless latent embryonal structures, relatively independent, are tolerated by the organism, remaining inactive till favored by some concurrent event, the nature of which is incomprehensible, when they may grow according to their bent. Is it not quite as possible there may be similar, relatively independent elements ready, when stimulated, to multiply independently? Congenital angioma often grow without definite limit; pigmented moles—black, slightly-raised patches in the skin with which all are familiar—are composed of tissue exactly resembling sarcoma; always suspicious because of their disposition to proliferate independently. It is most difficult to believe in the infidelity of covenant cells of sundering the compact which unifies the organism. Emancipation seems almost out of the question. We must not only believe that dependent benignant elements become independent, but indifferent, vicious, infective. In short, the elements of the host become the elements of a parasite,—a parasite so vigorous, corrupt, and wicked as to destroy its source.

The painful part of the retrospect of a year is that which recalls those who have been taken from us. The past year has had a very special grief for our Association in the death of one of our ex-Presidents, Dr. William Owen Baldwin, who died at his residence and the place of his birth, Montgomery, Alabama, May 30, 1886. He was among the early members of the American Medical Association, and its President in 1869, presiding at New Orleans. His address on that occasion will be remembered as abounding in Christian and patriotic sentiments, eminently befitting the good and great physician. The Committee charged with the organization of the Ninth International Medical Congress, which meets at Washington City this year, had named him as one of its Vice-Presidents. Dr. Baldwin was remarkable for his culture, the eloquence of his speech, and the beauty of his diction, and will be remembered as an imposing figure in the history of this great Association.

I need scarcely remind you, gentlemen, that we shall have with us after a few weeks the medical men of all nations. Soon we shall extend the hand of fellowship to those with whom we have heretofore been united in interest and sympathy in the cause of science. We know that everything is being made ready, and that success is assured. Again you will join me, I know, in the declaration that a hearty American welcome awaits their advent, and that the ninth meeting of the great Congress will be memorable in the history of its organization.

On motion of William H. Pancoast, M.D., of Philadelphia, a vote of thanks was unanimously passed to the President for his most interesting and suggestive address.

By permission of the Association, the report of the committee on "The Sanitation of Emigrant-Ships," appointed at the last meeting, was read by the chairman, Dr. A. N. Bell, of New York. The report directed attention to the inefficiency of present legislation in securing proper sanitation on board of emigrant-ships, and pointed out some flagrant abuses. Among the means to be adopted, it was recommended that Congress be memorialized upon the subject by the Association, recommending that all vessels carrying more than six hundred passengers and crew, other than first-cabin and saloon passengers, should be provided not only with a properly-qualified physician, but also with a junior or assistant. These should all be competent to render prompt medical aid without charge to those who may need it, and also be capable of making suggestions to the master upon the sanitation of the vessel, and on arrival shall make full reports to the sanitary authorities of all cases of disease, insanity, or imbecility occurring during the voyage. An amendment to the Medical Act of 1882 was deemed imperatively necessary.

The report of the Committee was adopted, and the Secretary directed to transmit copies to the Secretary of the Treasury and to both branches of the next National Congress.

Dr. Deering J. Roberts offered resolutions of censure of a public newspaper in Chicago which had slandered the members of the Association.

Dr. Grissom, of North Carolina, objected to the passage of the resolutions, and moved that they be laid on the table. He considered the action recommended as unworthy the Association, and in view of its high calling it would be highly unbecoming to enter into controversy with a newspaper. (His motion prevailed.)

On motion of Dr. William Brodie, of Detroit, a proposed amendment was adopted creating a new Section on Dermatology and Syphilography. (On motion of Dr. George H. Rohé, the word "Syphilography" was substituted for "Venereal Diseases.")

A report on "Yellow Fever Legislation," Dr. J. McF. Gaston, Chairman, was, by his request, referred to the Section on State Medicine for discussion.

(To be continued.)

THE AMERICAN LARYNGOLOGICAL ASSOCIATION.

THE Ninth Annual Meeting of the Association was held in the Hall of the Academy of Medicine, New York, May 26, 27, and 28, 1887. The President, Dr. E. Fletcher Ingals, of Chicago, occupied the chair.

The meeting was opened by the delivery of the President's Address. After some preliminary matters had been discussed, he referred to

INTUBATION OF THE LARYNX.

In 1858 an attempt was made in Paris to treat stenosis by intubation. Seven cases were operated on, and of these five died and two cases recovered after subsequent tracheotomy. In 1880 O'Dwyer introduced intubation, one of the most useful operations of modern times. In the after-treatment, while the tube is in position, liquids should not be drunk by the patient.

In twelve cases of diphtheritic laryngitis he had performed intubation, in three of which recovery followed. By a coincidence, the cases of recovery were the only ones in which the author had charge of the after-treatment. One case lived eight days, and then died suddenly an hour after the tube had been removed. Another lived eight days, and then died of pneumonia. Details of the cases treated were given. As a result of his experience, he concluded that the treatment after intubation should be: 1. Prohibition of fluids except by enemata. 2. Some preparation of mercury should be given in large and frequent doses. 3. In case of development of bronchitis or pneumonia, respiratory and cardiac stimulants should be given freely but cautiously.

By correspondence and study of the literature he had collected five hundred and eighty-four cases, with one hundred and thirty-four recoveries. The percentage of recoveries will be greater when more care is exercised in the use of fluids. When medicines fail, no time should be lost in providing for the free entrance of air, either by intubation or tracheotomy. Intubation can be done more quickly, more safely, with less shock to the patient and less objection on the part of the parents. The operator should be prepared to open the trachea if loosened membrane should be forced down into the trachea. When the tube fails to relieve the dyspnœa tracheotomy should be performed, unless there is reason to believe that the latter operation will fail. When membrane is loose in the trachea, no time should be lost in the use of forceps, which rarely succeed, but tracheotomy should be resorted to. The results obtained by intubation are about as good as tracheotomy at all ages, but apparently better in young children.

The first paper read was by Charles E. Sajous, M.D., of Philadelphia, entitled

A STUDY OF SOME OF THE OBJECTIONABLE FEATURES OF INTUBATION.

Statistics favor the operation of tracheotomy at present, but the author believed intubation the better operation. The principal objections according to the degree of danger are: 1. The tendency to the obstruction of the tube by fragments of membrane. 2.

Crowding down of loose membrane during introduction of the tube. 3. Passage of food into the trachea. 4. Momentary arrest of respiration during introduction of tube. 5. Liability of the tube to be coughed out. 6. Slipping of the tube into the trachea. The tendency to obstruction was attributed to the limited diameter of the tube; the crowding down of membrane to the length of the tube; the passage of fluid to the weight of the tube; the liability to be coughed out to the limited diameter of the tube; and the slipping of the tube to the weight of the instrument and the formation of the head.

The speaker exhibited instruments on the principle of the bivalve speculum, which were intended to embody the suggestions made above. This tube obstructs the larynx very little, leaving the breathing-space almost as great as normal.

The author also exhibited an instrument intended to remove loose membrane from the larynx. The instrument consisted of forceps which could be protruded into the larynx, by an arrangement in the handle, the required distance, and the membrane grasped.

In the discussion which followed the reading of these papers Dr. Delavan suggested the use of an œsophageal tube in order to prevent ingested fluids from entering the trachea, and Dr. S. H. Chapman recommended the use of small quantities of pilocarpine to relieve thirst, and enemata or baths.

MODIFIED LARYNGECTOMY. BY J. SOLIS COHEN, M.D., OF PHILADELPHIA.

The operation is applicable to those cases in which malignant disease is not too extensive; it has the advantage over complete laryngectomy of leaving the greater portion of the thyroid cartilages undisturbed while the respiratory portion of the larynx is removed. On the cadaver the operation can be performed in two minutes. In disease limited to the interior of the respiratory tube, especially carcinomatous disease, it fulfils every indication that prompts complete laryngectomy. The advantages claimed for the operation were: 1. Rapidity, ease, and comparative safety for the patient. 2. The small size of the wound. 3. The preservation of the attachment of various important muscles and ligaments. 4. The retention of important structures in their normal relation. 5. A firm natural support is left for the application of any artificial apparatus.

The author urged that this operation should be performed in preference to complete laryngectomy except when absolutely precluded by the extent of the disease.

PRESENTATION OF INSTRUMENTS.

Dr. T. A. De Blois, of Boston, exhibited a portable apparatus for compressing air.

Dr. E. C. Morgan, of Washington, presented a universal powder-blower, which could be used in diseases of the nose, throat, vagina, or rectum.

Dr. Allen, of New York, exhibited an improved form of snare which could be used with one hand.

The following were appointed as the Nominating Committee: Drs. Beverly Robinson, of New York; W. C. Glasgow, of St. Louis; and S. H. Chapman, of New Haven.

THE PATHOLOGICAL NASAL REFLEX: AN HISTORICAL STUDY. BY JOHN N. MACKENZIE, M.D., OF BALTIMORE.

The fact is established beyond doubt that a causal relation exists between diseases of the nasal mucous membrane and other portions of the respiratory tract and many conditions of distant parts of the body. Hay-fever can be traced to the time of Galen. The fact that tickling of the nose would arrest hiccough was referred to by Plato. The irritating effect of the odor of flowers was recognized in very early times. Reference was made to the observations of various individuals in regard to reflex conditions due to nasal disease. The paper was a very interesting contribution to a subject which only recently has had its real importance acknowledged.

ANALYSIS OF CASES OF HAY-FEVER. BY JOHN O. ROE, M.D., OF ROCHESTER.

The experience of the author up to the last hay-fever season comprised forty-two cases. A study of these cases tended in the main to confirm the opinions expressed in February, 1883. Of the forty-two cases, twenty-six were males and sixteen females. The attacks came on between May 1 and August 1. In all the active symptoms subsided soon after the appearance of frost. In some cases the hay-fever dated from a severe attack of cold. In every instance there was disease of the nasal passages. The location of the sensitive areas is not constant, but they are usually most marked over the areas of greatest hypertrophy. The areas have not been confined to the posterior portion nor especially to the anterior portion of the turbinated bones. In the majority of cases the septum was as sensitive as the turbinated bones. Thirty-one patients suffered with asthma. But twelve patients had a distinctly nervous temperament, while nine were distinctly phlegmatic.

The plan of treatment adopted is to restore the nasal passages as nearly as possible to their normal condition, and to destroy the sensitive areas by cauterization. Deep cauterization has been most effective, while superficial cauterization had no marked effect. The condition of the larynx, pharynx, and bronchi must not be overlooked. Not infrequently enlarged tonsils will keep up irritation in the turbinated bones. A neglect to cure a bronchitis may account for the return of the disease.

Thirty-five of these cases have practically been cured. Seventeen have remained exempt for periods varying from one to nine years. Four were not relieved owing to imperfect treatment; and five have been lost sight of. The following conclusions were presented:

1. All cases of hay-fever have their initial lesion in a diseased condition of the tissues of the nasal fossa.

2. All diseases of these tissues induce in the ganglionic centres connected with them an abnormal activity, which is reflected to other organs.

3. The sensitive areas in the nose are not found in any particular portion of the cavity. Nor are there any zones which when irritated produce always the same manifestations.

4. The direction in which the irritation is reflected is always in the line of least resistance. Irritation in the same region may be reflected in one direction at one time, and in another direction at another time.

5. The disease in the nose may produce disease in other portions of the respiratory tract, which may become independent centres of irritation.

6. The affection recognized as hay-fever is due to local irritations brought in contact with the sensitive areas in the nose.

7. The affection is not *per se* neurotic; nor is the so-called neurotic condition of the person necessary to render a person susceptible to local irritation applied to the air-passages. It is not necessarily associated with the nervous temperament.

8. The neurotic condition which is often regarded as the cause of the hay-fever is often the result of the local irritation.

9. By careful and thorough treatment of the disease of the nasal tissue combined with that of other portions of the respiratory passages below, which have become secondary sources of irritation, we need not fail to cure hay-fever.

In the discussion, Dr. C. E. Sajous, of Philadelphia, advocated deep cauterization. Drs. Mackenzie, Glasgow, Hooper, and Cohen regarded hay-fever as a general neurosis. Dr. Knight mentioned a case which had been arrested in its course by the fracture of a leg, and another after a consultation with a disciple of mind-cure.

ON THE TREATMENT OF ATROPHIC RHINITIS BY APPLICATIONS OF THE GALVANIC CURRENT. BY D. BRYSON DELAVAN, M.D., OF NEW YORK.

Some years ago, Dr. E. L. Shurly, of Detroit, recommended the use of the galvanic current in the treatment of dry catarrh of the pharynx, and related cases in which benefit had followed its use. He also advocated the same treatment in atrophic rhinitis. There is no disease which is more discouraging to the physician and patient than this of atrophic rhinitis. The author had tried this method of treatment in certain cases. The positive pole of a constant-current battery was applied to the nape of the neck, while the negative pole was applied directly to the mucous membrane by an electrode consisting of a copper wire around which absorbent cotton is wrapped. The strength of current employed varied from four to seven milliampères. In more recent cases of the affection the effect is marked, but even in the older cases the method is not without benefit. The author had found this measure useful in these cases, and reported illustrations. The objection to the method is the amount of time it requires.

Dr. De Blois said that he had obtained good results from the treatment by galvanism. Dr. Knight recommended temporary plugging of the nostrils. Weak (five- to ten-grain-) solutions applied every other day were approved by Dr. Roe, and chromic acid by Dr. Sajous.

The next paper was on

MYALGIA OF THE PHARYNX AND LARYNX. BY DR. S. H. CHAPMAN, OF NEW HAVEN,

in which the speaker called attention to certain peculiar conditions of the muscles of the upper air-passages which occur oftentimes in malarial disorders, and which, on account of their severity, may be brought to the notice of the specialist. The muscles most likely to be affected are the pectoral, the muscles of deglutition, and those of the larynx.

SENSORY AFFECTIONS OF THE THROAT. BY DR. F. I. KNIGHT, OF BOSTON.

The author especially referred to hyperæsthesia and paræsthesia. In hyperæsthesia the general condition of the patient is as a rule not sufficiently considered. The worst cases are alcoholic subjects and those with digestive disorders. These will often yield to withdrawal of the alcohol and regulation of the diet. Astringents are frequently of service. In the cases of paræsthesia which he had seen there had been a feeling of fulness, pressure, burning, globus hystericus, or the sensation of a foreign body in the throat. In these cases there is impairment of the general nervous system. The exciting cause may be some disease of the throat. Fatigue usually exaggerates these sensations. He had never met with paræsthesia of the larynx as the earliest symptom of phthisis, as had been claimed by some observers. The prognosis in most cases of paræsthesia is good if a careful treatment be carried out. The treatment of the neurosis of sensation must be aimed to cure the constitutional vice.

In the discussion cases were mentioned in which neuralgic pains were associated with syphilis, in others it seemed to be rheumatic or gouty.

(To be continued.)

AMERICAN SURGICAL ASSOCIATION.

(Continued from page 614.)

Third Day, Morning Session.

IN executive session the following officers were chosen for the ensuing year:

President.—D. Hayes Agnew, M.D., of Philadelphia.

Vice-Presidents.—N. Senn, M.D., of Milwaukee, and F. S. Dennis, M.D., of New York.

Secretary.—Jacob R. Weist, M.D., of Richmond, Indiana.

Treasurer.—Phineas S. Conner, M.D., of Cincinnati, Ohio.

Recorder.—J. Ewing Mears, M.D., of Philadelphia.

Council.—J. S. Billings, M.D., L. McLane Tiffany, M.D., Moses Gunn, M.D., and R. A. Kinloch, M.D.

Chairman of Committee of Arrangements.—John S. Billings, M.D., of Washington.

The following were elected to membership: Charles B. Porter, M.D., of Boston; William M. Masten, M.D., of Mobile; and Morris H. Richardson, M.D., of Boston.

The next meeting is to be held at the call of the President.

SURGICAL DISEASES OF THE WHITE AND COLORED RACES COMPARED. BY L. McLANE TIFFANY, M.D., OF BALTIMORE.

The paper was based on the record of four thousand nine hundred and thirty cases studied during a period of thirty-four months in a general hospital. The percentages of the affections were given in detail. The paper was simply intended as a preliminary communication, and, as a result of a study of the figures obtained, the following suggestions were made:

1. Surgical affections follow different courses in the white and colored races under identical hygienic surroundings.

2. Surgical injuries and operations are better borne by negroes than by whites.

3. Surgical diseases involving the lymphatic system, especially tubercular, are more fatal and more rapidly fatal in negroes than in whites.

4. Congenital deformities are rarer in negroes than in whites.

5. The surgical differences observed in whites and negroes are due to racial peculiarities.

DISCUSSION.

Dr. Christopher Johnston, of Baltimore, in opening the discussion, said that his experiences indicated that there are individual as well as racial peculiarities. These are most striking in proportion to the pureness of blood. The negro is a good subject for surgical operation. He had never seen carbuncle in the negro; nor could he recall a cleft palate or hare-lip in the darker individuals. Epithelioma is infrequent. Fibromas are quite frequent. He wished to emphasize the proneness to the development of keloid in the negro, and had found that in the negro the skin and white fibrous tissues are more frequently the seat of certain diseases than the same tissues in the white.

Dr. T. H. Richardson, of New Orleans, presented a detailed report of the statistics of the Charity Hospital bearing upon this point. He had found congenital deformities rarely in the negro.

Dr. E. H. Gregory, of St. Louis, said that he had seen keloid much more frequently in negroes than in whites, and he had never seen multiple keloid in the white race. The ability of the negro to stand operation may be due to his indifference and his inability to comprehend the magnitude of the operation. The results obtained at the City Hospital of St. Louis show that the negroes bear operations about as well as whites. It seems to be the generally-accepted idea that negroes are more subject to tubercular affections.

Dr. W. T. Briggs, of Nashville, Tennessee, said that his experience confirmed the suggestions of Dr. Tiffany. Negroes are very prone to suppuration. It is extremely difficult to prevent suppuration, even under strict antiseptic precautions. Negroes bear operations better than whites, but they do not get well so rapidly. While malformations are less frequent, still they do occur. The rarity of hydrocele in the hospital-records may be explained by the fact that negroes do not usually seek advice until the tumor has become so large as to give rise to much inconvenience. Fibroids and fibro-cystoma are very common in the negro. Ovarian tumor is rare, although he had had one case in which the tumor weighed one hundred pounds.

Dr. D. W. Yandell, Louisville, Kentucky, agreed with Dr. Briggs. He had seen many cases of keloid in the negro, but not a case in the white subject. He had seen but two cases of hydrocele in the negro, and never saw hare-lip, and but two ovarian tumors in the negroes. He never saw epithelioma of the face in a negro. Epilepsy is exceedingly rare in the negro. He had never seen a case of internal hemorrhoids in the negro. Tetanus is exceedingly common, especially in the black race. Stricture of urethra is exceedingly common among negroes.

Dr. R. A. Kinloch, Charleston, South Carolina: In considering this subject we make a mistake in classing all negroes together. In the pure negro suppuration is less likely to occur than in the white race. As a rule, the negro is not strumous, but mulattoes are. The pure negro bears operation well and recovers promptly.

Dr. A. Vanderveer, of Albany, during the past twenty years had seen a good many negro patients among the United States prisoners sent to the Albany penitentiary. The

vast majority of these die of tuberculosis of some form. Many of them have soft chancre with suppurative buboes. Where there is true Hunterian chancre, there has been the characteristic bullet bubo seen in the white race. There are a greater number of perineal abscesses and sinuses than in the white. If operation is done, there is less probability of urethral fever.

AN EXPERIMENTAL STUDY OF THE EFFECTS OF PUNCTURE OF THE HEART IN CASES OF CHLOROFORM-NARCOSIS. BY B. A. WATSON, M.D., OF JERSEY CITY, NEW JERSEY.

The investigation of this subject was suggested to him by the following occurrence. February 20, 1887, he had with chloroform killed a dog. The abdominal and thoracic cavities were opened about four minutes after the heart had ceased to beat. The assistant seized the heart with his thumb and forefinger, and the pulsations at once began, the contractions became full and regular, and continued three minutes. They were again stimulated by a second touch, action continuing two minutes. They were started a third time, and continued to beat one-half minute. This observation suggested the possibility of arousing the heart into action, even after entire cessation of its movements, by the introduction of a needle into the organ.

[The results of sixty experiments on dogs were given in detail. The experiment consisted briefly in producing death by chloroform-inhalation, and then, within from one to three or four minutes, an aspirating-needle was introduced into the heart through the chest-walls, the attempt being to reach the right ventricle. In the first fifty cases the chloroform was administered rapidly, and air was excluded as far as was possible. In the last ten the chloroform was administered slowly and with a large proportion of air. The first forty animals had already suffered some severe traumatic injury, while the last twenty were perfectly healthy animals. The punctures made in these sixty experiments were as follows: right ventricle, thirty-eight; left ventricle, six; right auricle, six; superior vena cava, three; inferior vena cava, two; apex of the heart, two; and not stated, one. The resuscitations were as follows: after puncture of the right ventricle, nine; right auricle, one. The first forty experiments gave only four recoveries, while the last twenty gave six. In only one of the sixty cases did the heart fail to respond to puncture, and in this instance the use of the needle was postponed for four minutes after the cessation of the heart's action, and one minute after breathing had stopped.]

Should the puncture be carried into one of the cavities of the heart in order that blood may be abstracted? In chloroform-narcosis the heart is found in diastole and the veins in the lungs are greatly distended with blood. It may, therefore, theoretically be assumed that blood may be advantageously drawn from the right side of the heart. The author was assured that this procedure was practical and advantageous.

The only deaths during these experiments which could be attributed directly to the puncture were those in which the needle penetrated the vena cava. In these cases there was profuse hemorrhage into the thoracic cavity. Punctures made into the auricle are sometimes followed by a flow of blood into the pericardium. Punctures into the ventricle are not attended with any hemorrhage from the interior of the organ, but there may be a few drops of blood from a wounded cardiac vein.

The following conclusions were reached:

First. Puncture of the heart, especially of the right ventricle, stimulates muscular contractions, and may be advantageously applied in the treatment of chloroform-narcosis.

Secondly. The best results are obtained when abstraction of blood from the cavity of the ventricle is combined with the stimulating effects produced by the entrance of the aspirator-needle.

Thirdly. The puncture of the right ventricle is a safer and more efficient operative procedure than the puncture of the right ventricle.

DISCUSSION.

Dr. N. P. Dandridge, of Cincinnati: We should be careful how we apply the deductions from these experiments to the human being. The conditions under which the experiments were made are different from those under which accidents usually occur in human beings. Accidents usually occur after only a small quantity has been taken, and often early in its administration. The effect is probably due to a reflex effect upon the inhibitory action of the heart. In the experiments reported, puncture was resorted to within one or two minutes after the cessation of the heart's action. In the accidents with chloroform it is not uncommon to have recovery after apparent cessation of the heart's action for a comparatively longer period. A large number of experiments are required to test the relative value of this procedure as compared with artificial respiration. The use of nitrite of amyl, and particularly with the subcutaneous injection of atropine, can always be done quickly, and has a stimulating effect upon the cardiac and respiratory centres.

Dr. John B. Roberts, of Philadelphia: While he has shown the comparative innocuousness of puncture of the heart with a small needle, the speaker has also shown the danger of using chloroform as an anæsthetic in any cases, possibly cases of parturition excepted. It is doubtful whether he could have killed the same number of dogs with

ether. His experiments have shown that it is more dangerous to puncture the auricle than the ventricle, which would naturally be suggested by the fact that the auricle has a much thinner wall. Dr. Westbrook, who performed cardiocentesis for conditions other than chloroform-narcosis, suggested puncture of the right auricle to the right of the sternum. The speaker had suggested, in 1883, that it would be better to puncture the right ventricle to the left of the sternum.

Dr. L. McLane Tiffany, of Baltimore: There are two points in which these experiments are open to criticism. It is well known that on dogs chloroform acts in a very uncertain manner. It is not safe to make deductions from the dog to the human being under these circumstances. In the second place, it is not well to make experiments in the laboratory and then advise others to try them on the human subject. The experimenter should test the experiments on the human subject before he recommends the procedure to others.

Dr. R. A. Kinloch, Charleston: In a recent case of chloroform-narcosis in my practice heart-puncture was tried, but without the slightest benefit.

Dr. T. J. Dunott, of Harrisburg, knows of one case in which the heart was twice punctured with an aspirator-needle and blood drawn from the cavity of the heart. It was a case of dilatation of the heart, with general dropsy, etc. The operation was performed by a homœopathic practitioner under the idea that he was dealing with a case of dropsy of the pericardium. A large quantity of blood was removed, and for a time there was improvement. The symptoms again returned, and the operation was repeated, but with a fatal result.

Dr. B. A. Watson said, in conclusion, that reference to the details of these experiments showed that in some the heart was excited to action fully three minutes after it had ceased. There are two reasons for selecting the right ventricle in place of the right auricle. In the first place, the risk of hemorrhage is less; in the second place, there is much more muscular substance in the wall of the ventricle than in the auricle.

With reference to the action of chloroform on the dog, I am well aware of the uncertainty of its action; but this is all against the dog. Where I have attempted to continue the anæsthetic action of chloroform on dogs for two hours, I lost one-half of the animals.

REPORT OF COMMITTEE ON THE PRESIDENT'S ADDRESS.

The Committee to which was referred the suggestions contained in the President's Address reported that, in view of the satisfactory manner in which the work of the present meeting had been prepared, it saw no reason for a change, and did not recommend the appointment of a Business Committee. It recommended the adoption of the second suggestion, with reference to the length of papers. With reference to the abrogation of Article IX. of the Constitution, the Committee was in accord with the President; but, as this article had been introduced at the express desire of the first President of the Association, it was recommended that it be allowed to remain. The Committee recommended the adoption of the suggestion that applications for membership should lie over for one year.

Afternoon Session.

HYPERTROPHY OF THE TONGUE, OTHERWISE KNOWN AS LINGUA VITULI, LINGUA PROPENDULÆ, AND MACROGLOSSIA. BY T. J. DUNOTT, M.D., OF HARRISBURG.

This affection of the tongue, although rare, is mentioned by nearly all surgeons of large experience. The case described by the speaker was that of a girl, 12 years of age, admitted to the Harrisburg Hospital January 6, 1886. The tongue protruded from the mouth a distance of three and five-eighths inches. The lips were greatly distended, and the angles of the mouth not far removed from the external opening of the auditory canal. The greatest width of the tongue was four and three-fourths inches, and the greatest circumference nine and three-fourths inches. The prolapse of the tongue was only of two months' duration, and had begun without apparent cause. The measurements taken one week after admission showed a decided increase in the size of the tongue. The tongue was removed February 19. After providing against hemorrhage, the organ was removed with scalpel and scissors, the section being so made as to secure a conical stump. All the dense fibrous mass was taken away, the weight of the removed portion being over ten ounces. By January 31 the stump was entirely healed. There was no difficulty in keeping the mouth closed. When heard from, March 23, she could eat and drink without difficulty, and was gaining flesh rapidly. The paper was concluded with an account of the various operations which had been practised for the removal of the tongue.

DISCUSSION.

Dr. L. McLane Tiffany, of Baltimore, said that the history of the case just given would well apply to a case which he had recently seen. A negro girl, 5 years of age, had suffered with hypertrophy of the tongue, dating from birth. Ever since the first few months of life the child had been unable to cover the tongue with its lips. The redundant portion of the tongue was removed with the Paquelin cautery. Within a week the patient was eating potatoes and meat, and left the hospital ten days after operation. At this time there was a healthy granulating surface.

CASES OF VAGINAL HYSTERECTOMY. BY J. FORD THOMPSON, M.D., OF WASHINGTON.

Case I.—Mrs. A. E., aged 45 years, white, was seen in April, 1885, suffering with malignant disease of the uterus. There was great destruction of the cervix, the ulceration extending above the internal os. On consultation, it was decided to avoid hysterectomy if possible, but to limit the operation to amputation of the cervix, with scraping, etc. During the operation the peritoneal cavity was opened. It was then decided to extirpate the uterus. The womb was separated from the bladder in front. A ligature was then placed around each broad ligament and tied. The uterus was then split in two. Each half was then brought down, the broad ligaments tied above the temporary ligatures, and the uterus removed. After thorough cleansing, the vagina was lightly packed with iodoform-gauze. At the end of the operation the patient was very weak, and, notwithstanding all efforts, died in the course of twenty-four hours.

Case II.—Mrs. H., white, aged 55 years, came under observation with cancer of the cervix in January, 1887. The posterior lip of the cervix was almost entirely destroyed, and the disease had encroached upon the posterior cul-de-sac. The cervical canal was involved at least as high as the internal os. The operation was performed February 28, 1887, antiseptic precautions being adopted throughout. The dissection was begun at the posterior part and carried around the cervix. A silk ligature was passed with a long curved needle through the lateral vaginal vault of either side and tied. The enclosed portion was then cut from the uterus. These ligatures presumably enclosed the uterine arteries and the lower part of the broad ligament. The uterus was then separated from the bladder in front, and a loop of silk was attached to the peritoneum. The posterior cul-de-sac was treated in the same way. The uterus was then tilted through the opening, and the broad ligaments transfixed and tied. There was no loss of blood. The peritoneal flaps were then brought together with two catgut sutures and a drainage-tube was introduced into each angle of the wound. The vagina was packed with iodoform-gauze. The patient recovered without any unpleasant symptoms.

Reference was then made to the history of the operation, and the various methods of performing it were described.

DISCUSSION.

Dr. T. R. Varick, of Jersey City: Whether such operations as this are likely to mitigate suffering or to prolong life beyond the average duration of the disease if left to take its course without interference, is a question yet to be determined. It would seem that any operation or method of treatment whose record does not show a prolongation of life beyond the utmost limit of the duration of the disease if left to itself is useless and should be avoided.

Dr. T. F. Prewitt thoroughly agreed with the author that extirpation of the uterus is a justifiable operation, and he did not know but that he was prepared to go still further and say that, on the earliest appearance of epithelioma of the cervix, the whole organ should be extirpated. He believed that ultimately this will be the course generally adopted.

Dr. E. H. Gregory, of St. Louis: It is one of the rules of old surgery to save every part possible, and I should no more think of removing the entire uterus for epithelioma of the cervix than I should think of removing the whole lip for limited epithelioma of that part. The surgery of the lips and the surgery of the jaws is applicable to the uterus.

Dr. R. A. Kinloch, of Charleston: Another of the rules of old surgery was that in malignant diseases we should cut far and wide. The older surgeons, as well as the modern, recognized the fact that malignant disease often spreads too rapidly for us. Here we have an organ suspended in the pelvis and easily isolated. Now, if statistics show that by cutting far and wide, without jeopardizing life too much, we can cut short the disease, we are carrying out the rules of old surgery when we do so.

The next paper was the report of a case of

ANEURISM OF THE LEFT SUBCLAVIAN ARTERY, FOR THE CURE OF WHICH THREE METHODS OF TREATMENT WERE EMPLOYED. BY T. G. RICHARDSON, M.D., OF NEW ORLEANS.

The patient, a healthy, muscular Irish laborer, came under observation October 19, 1885. Aneurism of the left subclavian artery was recognized. The patient had suffered with syphilis, and constitutional measures were first tried. Iodide of potassium in fifteen- or twenty-grain doses was given three times a day. At the end of a week, no perceptible effect being observed, it was discontinued. Direct pressure was next tried; an elastic band with a compress over the vessel was secured to a belt around the waist. This was continued a month, and, although it slightly retarded the growth of the swelling, it had had no decided result. The third method, the introduction of surgical pins, was next resorted to. Nineteen of these—measuring an inch and a half in length—were passed through the anterior wall of the tumor at different places. The aneurism was still growing rapidly, and all the pins that could be reached were withdrawn. Some of them had disappeared on account of the swelling which had taken place. An attempt was then made to ligate the axillary artery; but in spite of the utmost care the lower portion of the aneurism was ruptured in the progress of the operation. The wound was at once packed

with lint dipped in Monsel's solution. The hemorrhage having been stopped, half a drachm of a five-per-cent. solution of perchloride of iron was injected into the centre of the tumor. At the end of twenty-four hours, no coagulation having taken place, a second injection of twice the strength was employed. The next morning there was an exhausting hemorrhage, ending fatally in a few hours.

A CASE OF FEMORAL ANEURISM CURED BY ELEVATION AND FLEXION OF THE LIMB

was reported also by Dr. T. G. Richardson, of New Orleans.

The patient, an Italian, aged 55 years, was admitted to the hospital December 11, 1886, with a large aneurism of the femoral artery four inches below the femoral arch. While the case was being studied the limb was flexed at a right angle at the hip and knee and suspended on a Smith's anterior splint. The next day the pulsation was greatly reduced and the patient was quite comfortable. The treatment was continued, and at the end of the third day the tumor was solid. The limb was kept in this position for ten days or two weeks. The patient was discharged cured one week later. The speaker called attention to the fact that there was no direct pressure upon the tumor, and that the result was due entirely to flexion and suspension of the limb.

WOUNDS: THEIR ASEPTIC AND ANTISEPTIC TREATMENT,

was the subject of a paper read by David Prince, M.D., of Jacksonville, Illinois.

After referring in general terms to the methods in use for the prevention of contamination of wounds, the speaker described an operating-room which he had devised, the object of which was to prevent the entrance of infecting principles. All the air entering this room is filtered through successive layers of cotton. The air is heated by means of gas-burners, and to prevent drying of the wound steam is permitted to enter with the air.

The next paper was entitled "Splenotomy." It was presented by James McCann, M.D., of Pittsburg, and communicated the notes of a case in which removal of the spleen had been practised with recovery of the patient.

A paper entitled "The Study of the Methods of Operation practised and of the Results obtained in the Treatment of Cleft of the Hard and Soft Palates, illustrated by the Record of Fifty Cases," by J. Ewing Mears, M.D., of Philadelphia, was read by title.

A vote of thanks was then extended to the Surgeon-General of the United States for the use of the room, to the Cosmos Club for courtesies extended, and to the officers of the Association for the efficient manner in which the proceedings had been conducted.

The Association then adjourned.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

A STATED meeting of the Society was held April 27, 1887, H. AUGUSTUS WILSON, M.D., in the chair.

Dr. H. M. FUSSELL read a paper on

THE DIAGNOSTIC VALUE OF TUBERCLE-BACILLI IN SPUTA.

In looking over the literature relating to this subject, I have found but few writers among Americans, while the foreign journals of 1883 and 1884 contain numerous articles pertaining to it. At that time the subject was new, and it might be objected that the writers in those years were carried away by the glamour of the subject. That objection at least cannot be made to an article written now, five years after Koch's discovery, and more than four years since its application to the examination of sputa.

Without exception, the writers spoken of above agree that as a diagnostic sign of phthisis tubercle-bacilli found in sputa are of the greatest practical importance.

Heron (*Lancet*, February 3, 1883) examined sputa from sixty-two cases, and found bacilli in all but three. He comes to the conclusion that "the presence of the bacillus of tubercle in sputum is sufficient to fix the identity of certain cases of disease."

West (*Lancet*, February 25, 1883) thinks bacilli in sputa may be of diagnostic value in some doubtful cases, but generally they are in confirmation of what is made plain by physical signs.

Williams (*Lancet*, February 24, 1883) examined one hundred and thirty specimens of sputum; twenty-one cases were of various diseases other than phthisis,—asthma, bronchitis, etc.; one hundred and nine cases of various forms of phthisis: one hundred and six of the one hundred and nine cases contained bacilli.

Sée is a firm believer in the diagnostic value of tubercle-bacilli in sputa.

Dreschfeld examined forty-six cases in which physical signs were marked, and three doubtful cases,—two with no physical signs, one with an apex-catarrh only. He concludes that tubercle-bacilli in sputa are of the greatest diagnostic value, but of no prognostic value.

Licht found bacilli in sputa of all of twelve cases of phthisis.

Heron (*British Med. Journal*, April 28, 1883) found tubercle-bacilli in sputa of one hundred and sixteen cases. In the majority of cases there could have been no reasonable doubt because of the physical signs, but in a few cases where bacilli were found there were but few physical signs.

Marchiafava and Celli are quoted in the *London Med. Record* of January 15, 1886, as having found Koch's bacillus in sputa of fif-

teen cases of phthisis, in one case of slight catarrh of apex, and in one case of hæmoptysis without signs. They failed to find it in six cases of chronic bronchitis and one case of syphilitic inflammation.

Negri and Pinolini (*London Med. Record*, January 15, 1886) diagnosticated phthisis by the examination of sputum, and confirmed the diagnosis by subsequent physical examination.

Voblyi (*British Med. Journal*, 1883) found tubercle-bacilli in sputa of all of thirty-five cases of phthisis. No tubercle-bacilli were found in eighteen cases of various other lung-diseases. In some of the cases of phthisis the physical signs were at first meagre, but became more evident after a time.

Dreschfeld (*British Med. Journal*, February 17, 1883) examined sputa of three cases of hæmoptysis without evident physical signs of phthisis. Tubercle-bacilli were found in all the cases.

Prudden (*New York Med. Record*, April 14, 1883) examined fifty-eight specimens of sputa. Tubercle-bacilli were present in forty-six cases.

Austin Flint, Sr., says the results of the examinations of various specimens of sputa for tubercle-bacilli satisfy him that bacilli in sputum may be relied upon as proof of the existence of tuberculous disease.

If repeated examinations made with sufficient care show the presence of tubercle-bacilli, the diagnosis of phthisis is positive; and, on the other hand, if on repeated and careful examinations tubercle-bacilli be *not* found, phthisis may with much probability be excluded.

I venture to predict that the time will soon come when, in order to corroborate the diagnosis, and as the hinge on which the diagnosis will turn in certain cases, microscopical examinations of the sputa will be considered as much a matter of course as examinations of urine for evidence of renal disease.

My personal observations, as set forth below, confirm the above opinions and enable me to reaffirm that the presence of tubercle-bacilli in sputa is diagnostic proof of the presence of tuberculous phthisis. In the examination of my cases I used a modification of Gibbe's method suggested by Professor William Osler.

The sputum was spread as thinly as possible on a thin cover-glass, allowed to dry in the air, and passed quickly two or three times through the flame of a spirit-lamp. The cover-glass was then immersed in solution of magenta, manufactured by Beck & Co., and allowed to remain fifteen minutes, after first slightly heating. It was then decolorized in alcohol, acidified with hydrochloric acid (four or five drops to a watchglassful of alcohol), and examined under a moderately high power.

In this manner the whole proceeding can be done in less than half an hour. If bacilli were not found by the rapid method, however, the glasses were allowed to remain in magenta over-night, and then examined as before. The power used at first was Hartnack No. 9 immersion, afterwards 7 objective, 4 eyepiece. Lower power may be used, however, by one perfectly familiar with the bacillus. I have used a Zentmeyer one-fifth with A eyepiece.

The sputa from one hundred cases of lung-disease were examined.

For convenience we may divide these cases into two classes, I. and II.

Class I. contains eighty-four cases. The sputa of all these cases contained tubercle-bacilli.

Class II. contains sixteen cases. Tubercle-bacilli were *not* found in the sputa from any of these cases.

Each of the above classes may be subdivided—

Class I.

Subdivision A contains seventy-nine cases in which there were evident physical signs of phthisis.

Subdivision B contains five cases in which there were few or no physical signs of phthisis. The diagnosis was made by the presence of bacilli in the sputa.

Class II.

Subdivision C contains eight cases in which phthisis was *not* suspected from the physical signs, and no bacilli were found.

Subdivision D contains eight cases in which the physical signs led to a suspicion of phthisis, but the absence of tubercle-bacilli and the subsequent history proved it to be absent.

It is in such cases as those of Subdivisions B and D that the presence or absence of tubercle-bacilli in the sputa is of such practical value, and it will be well to take these cases in detail, referring the more curious to the summary attached for an account of each case.

We will first give our attention to the five cases under Subdivision B, or those in which the physical signs did not warrant a diagnosis of phthisis and in which tubercle-bacilli were found, the subsequent history proving the correctness of a diagnosis of phthisis made after examination of the sputa.

Case XVII.—Thomas R., aged 41, of good family history. Cough, hectic, and loss of flesh for eight weeks. Physical signs at first examination were entirely inadequate to base a diagnosis of phthisis upon. Examination of sputa at second visit showed the presence of myriads of tubercle-bacilli. Afterwards consolidation at right apex developed. The case ran a rapid course, and death took place within the year.

Case XXV.—May C., aged 21. Both parents dead of phthisis; cough, hectic, loss

of flesh. Examination of throat showed the presence of a polypoid growth. Physical signs were inadequate to base a diagnosis upon, though there were some signs of congestion at right apex. Examination of sputa showed numerous tubercle-bacilli. Rapid consolidation took place; death in eight months at the Episcopal Hospital.

Case XVIII.—Annie W., aged 35. Husband died of phthisis six months before patient came under observation. She was suffering from extreme dyspnœa and cough. Œdema of feet, having had an attack of general œdema some weeks previously. Examination of chest showed a mitral systolic murmur. The heart was beating very rapidly. The symptoms were attributed to the heart-lesion. No signs of consolidation could be found after careful examination. On examination of sputa, they were found loaded with tubercle-bacilli. She was admitted to the University Hospital; gradually failed; her chills and fever becoming more marked. Repeated examination of sputa always showed bacilli; finally signs of consolidation at right apex developed.

Case XX.—Mrs. R. Cough, slight expectoration, meagre physical signs. A few tubercle-bacilli found. Eight months have passed since the first examination. In the mean time the woman has become pregnant, and her health has improved, though the cough still remains. January 17, 1887, child born; cough returned, sputa re-examined, bacilli found. More evident signs of consolidation at apex.

Case C.—Mrs. H. Good family history. There was an attack of pneumonia three years ago. Since then health has been gradually failing. Now there are cough, hectic, loss of flesh. Slight consolidation at left apex. This woman was taken for consultation to one of the first diagnosticians of the city. The consolidation was recognized, but the case pronounced one of a probable catarrhal character. The sputa from this case were afterwards given to me, and myriads of tubercle-bacilli found. April 21, the case has grown rapidly worse, and death is expected daily.

As was stated in the history of these cases, the physical signs did not warrant a diagnosis of phthisis. The examination of the sputa was made because the cases were doubtful and interesting, for the sake of making the diagnosis. Though no better in these instances for the patient, it was a comfort to the physician as a diagnostician when the histories proved the correctness of his diagnosis of phthisis.

No less interesting and instructive than the above are the eight cases coming under Subdivision D, where the history and physical signs gave a strong suspicion of phthisis. No bacilli were found in any case, and complete recovery took place in five of the cases, two became much better, and one died of the results of an acute and, as I claim, croupous pneumonia.

Case XIV.—John C., aged 66. For four months there had been cough, hectic, sweats, and loss of flesh. There were signs of consolidation at right base. Under treatment the lung cleared up and the man made a good recovery. Repeated examination failed to show bacilli.

Case I.—William R. Family history of phthisis. Cough, some loss of flesh, hectic. Consolidation at left base. No bacilli were found. Under treatment lung cleared up, and one year afterwards he returned to the dispensary entirely well of lung-trouble.

Case III.—Walter L., aged 20. Good family history. Cough for one month. A sudden, rather profuse, hemorrhage. There were slight fever and signs of congestion at left apex. No bacilli were ever found. One year afterwards no return of trouble, and seems perfectly well.

Case VIII.—Alma N., aged 25. Uncle died of phthisis. Cough with slight loss of flesh for three months. The left apex dull, full of mucous râles, prolonged expiration. No bacilli found after repeated examinations. The lung cleared up, cough stopped, and one year after patient seemed perfectly well.

Case VI.—K. H., aged 35, with a good family history, had an attack of pneumonia eighteen months before she came under observation (declares she was perfectly well before). Since then has had cough, hemorrhage, hectic, loss of strength, but not of flesh, copious expectoration. On examination a large cavity was found at right apex. Repeated careful examinations failed to show tubercle-bacilli. The patient remained under observation for six months, and was in about the same condition as at first. This must have been either a cavity due to breaking down of lung following pneumonia, or, as Professor Flint suggests, one in which the tubercular process had become cured or was dormant.

Case VII.—A girl, aged 7. Perfectly well until ten weeks before she came under observation. At that time she had an attack of what was apparently acute pneumonia of the right apex. She did not rally. The lung broke down, and at the time she was seen there was a cavity at right apex. The patient died from exhaustion four weeks after. No bacilli were ever found in sputum.

Case II.—Man, aged 29, with a family history of phthisis. Had an attack of hæmoptysis in the fall of 1884; during that winter severe cough and loss of flesh. There were physical signs of consolidation at left apex. No bacilli were found after careful and repeated examinations. The man gradually improved, and now, April, 1887, is apparently well, though there is still some dulness at left

apex; he is able to work, and does not complain.

Case XV.—Sallie K., aged 29. Good family history. About one month before she came under observation began to have cough, fever, pain, rapid loss of flesh. She was found in bed, emaciated, slight fever, 101° F., extreme dyspnœa, diarrhœa, and presented the picture of one in advanced phthisis; indeed, such had the case been pronounced. I found but few physical signs. There was consolidation at left base, however. Repeated examination failed to show bacilli. Under vigorous treatment the patient revived, and now is perfectly well. Evidently a case of neglected pneumonia.

Of the seventy-nine cases belonging to Subdivision A there could have been no reasonable doubt of the existence of phthisis, basing the opinion on the physical signs present. Tubercle-bacilli were found in each case.

Subdivision C contained eight cases,—two of chronic pleurisy and six of chronic or subacute bronchitis. The sputa from each case were repeatedly examined, and no bacilli were ever found.

As most of the cases reported were taken from my service at the University Medical Dispensary, and as dispensary cases as a rule are not long under observation, it is impossible to draw any positive conclusions from these cases as to the relation between the bacillus and prognosis in phthisis, but in Cases XVII., XIX., and LXXVII., which ran a fatal course within a year, and in Cases XXXI., XXXIII., XXXVII., XXXIX., XLVIII., LVII., LXXVI., and XCVI., which were examined near to the time of death, tubercle-bacilli were unusually abundant. Especially was this the fact in Case LVII., which was examined about ten days before death.

In conclusion, I wish to acknowledge my indebtedness to Professor Osler, to whom I owe my knowledge of the *technique* of the work, and to Drs. John H. Musser, of Philadelphia, and R. R. Bunting, of Roxborough, for opportunity given to examine sputa of their cases.

DISCUSSION.

Dr. W. Osler: I think that the importance of the tubercle-bacillus in the sputum as a means of diagnosis is not sufficiently recognized by the profession. The technical skill required is not very great, and the time required with the rapid methods of staining is not more than fifteen to thirty minutes. I have succeeded in demonstrating the bacillus within five minutes from the time that the sputum was put upon the slide. This examination is particularly serviceable in just those cases where the evidences of disease are very slight. Only within the past few weeks there was in the University Hospital a man without any pulmonary signs who had been failing in health and had slight fever. The condition was attributed to some obscure abdominal disease. Finally a suspicion arose that there might be some trouble with the lung, and the sputa were examined and the bacilli found. The signs of phthisis have since developed. The power required for these examinations need not be, as Dr. Fussell says, very high.

Dr. Frank Woodbury reported a case of "Laparotomy for Perityphlitic Abscess, with Removal of the Vermiform Appendix." (See page 593).

AMERICAN ORTHOPÆDIC ASSOCIATION.

THE first meeting of this new special organization was held at the New York Academy of Medicine, New York, June 15 and 16, 1887.

After assembling, the Association organized by electing Dr. Virgil P. Gibney, of New York, temporary Chairman, and Dr. Louis Hall Sayre, of New York, temporary Secretary. The proceedings were interesting and varied.

The following papers were read and discussed:

Dr. Packard, of Hartford, read the history of a case of enlargement and elongation of the lower extremity.

Dr. Morton, of Philadelphia, presented an instrument for the forcible correction of club-foot.

Dr. Sayre, of New York, exhibited a case of talipes equino-varus treated by division of the tendo Achillis.

Dr. Gibney, of New York, exhibited two cases of chronic osteitis of the shoulder-joint.

Dr. Taylor, of New York, read notes on a case of Pott's disease.

Dr. Judson, of New York, exhibited a new form of ischiatic crutch.

Dr. A. Sydney Roberts, of Philadelphia, made some remarks on spurious valgus (flat-foot), and showed a new form of plantar spring for treatment.

Dr. Bradford, of Boston, presented specimens and the history of a case of hip-joint disease.

Dr. Sayre, of New York, presented specimens from a case of excision of the hip.

Dr. Gibney, for Dr. Morgan Vance, of Louisville, presented a specimen of a rudimentary tail that had been removed from a negro.

Dr. Ridlon, of New York, read the history of two cases of Pott's disease in children, difficult of actual diagnosis.

Dr. Hodgen, of St. Louis, made some remarks on the treatment of psoas abscess for caries of the spine.

Dr. Taylor, of New York, exhibited a new form of antero-posterior splint for the treatment of Pott's disease, and a new abduction splint.

Dr. Ketch, of New York, showed a new

method of securing constant traction in using the long hip-splint.

Dr. Stillman, of New York, exhibited a new form of round-shoulder brace.

Dr. Brown, of New York, showed a case on which osteoclasis had been performed.

Dr. Bradford, of Boston, read the history of a case of torticollis due to strabismus.

Dr. Knickerbocker, of New York, exhibited a new form of abduction apparatus.

A permanent organization having been formed, the following officers were elected for the ensuing year:

President.—Newton M. Shaffer, of New York.

Vice-Presidents.—Z. H. Bradford, of Boston, and A. Sydney Roberts, of Philadelphia.

Secretary and Treasurer.—Louis Hall Sayre, of New York.

Corresponding Secretary.—Samuel Ketch, of New York.

The Association will meet next year at a place and time to be selected by the Executive Committee.

A banquet given at the St. Nicholas Club and private receptions added to the social attractions of the meeting.

REVIEWS AND BOOK NOTICES.

THE HEALING OF ARTERIES AFTER LIGATURE IN MAN AND ANIMALS. By J. COLLINS WARREN, M.D., Assistant-Professor of Surgery, Harvard University; Surgeon to the Massachusetts General Hospital; Member American Surgical Association; Honorary Fellow Philadelphia Academy of Surgery. One volume, 184 pages. Superbly illustrated with Twelve Full-Page Plates in Black and Colors. Parchment-muslin binding. Price, $3.25. William Wood & Co., New York.

In this handsomely-printed monograph Dr. Warren discusses the history of the use of the ligature in surgery, and of the various theories concerning the method of repair. He contributes the results of his own experimental and clinical investigations carried on through a series of years, including observations upon the closure of fœtal vessels, and concludes with a summary of the whole subject. The book is handsomely printed, and contains a number of well-prepared illustrations. This work is highly creditable to American surgery.

EARTH AS A TOPICAL APPLICATION IN SURGERY. By ADDINELL HEWSON, M.D. Second Edition. With Four Photo-Relief Illustrations. Philadelphia, The *Medical Register* Company, 1887. Pp. 309.

The recent advances in surgical appliances bring into discussion the *modus operandi* of former methods of treatment. The antiseptic effects of clay are now cited to explain its remarkable effects when applied to some cases of suppuration. The cases given in this book will always command for the treatment advocated a respectful consideration. It is handsomely printed and illustrated.

NEW REMEDIES AND CLINICAL NOTES.

THE POISONOUS ACTION OF THE CHLORATES.—Marchand, of Marburg, gives a number of experiments on the dog as to the effects of an overdose of the chlorates (the potassium salt being commonly used), and also a collection of cases of poisoning by the same salt. In his experiments the salt was introduced into the system in various ways. The result was the same in each case,—viz., a change in the color of the blood to a dark brown during life, swelling of the spleen, and the occurrence of hæmoglobinuria and hæmoglobin casts in the tubules of the kidney. Exactly the same takes place in man when an overdose has been administered or taken inadvertently, the lapse of time before death varying in different cases from six hours to twelve days. Death is preceded in most cases by vomiting, diarrhœa, cyanosis, and collapse. Dyspnœa and convulsions are apt to supervene, and a dark coloration of urine if the case persists any time. The changes found after death in man correspond with those found in the poisoned dog. Out of twenty-five collected cases only four survived; of the remaining twenty-one, fourteen died within the first five days. After comparing these two series, Marchand discusses the action of the chlorates on the organism, and their *modus operandi* in producing death. On examining the blood during life or after death, the coloring-matter is changed into methæmoglobin, as evidenced by the dark or chocolate-brown color of the blood and its spectroscopic characters. The coloring-matter is disassociated from the red blood-corpuscles, set free, and converted into methæmoglobin, the corpuscles being rendered functionally useless, whence the dyspnœa in some cases. The destroyed or altered red blood-corpuscles become heaped up in the spleen, giving rise to swelling of that organ; and the free pigment floating in the blood is excreted by the kidneys, producing dark coloration of urine and casts of the tubules. In some cases of somewhat slow progress cerebral symptoms allied to those of uræmia supervene from suppression of urine, due, he thinks, to plugging of the straight tubules of the kidney with hæmoglobin casts. A few of the cases of poisoning have occurred even during the ordinary use of chlorate of potassium in the form of a gargle.—*Archiv f. Exp. Path. u. Pharm.*, vol. xxii., 1886; *Practitioner*.

PICRATE OF AMMONIUM FOR MALARIAL DISORDERS.—Mr. H. Martyn Clark, a medical missionary in India, has abandoned the use of the cinchona alkaloids in the treatment of intermittent fever in favor of picrate of ammonium. Of five thousand cases of which records were kept, in only nine did it fail to cure, and in these quinine succeeded at once. In all varieties of intermittent fever and in malarial neuralgias he found this agent an efficient substitute for quinine, over which it has the following advantages: 1. It is much less expensive. 2. The dose given is much smaller (gr. ⅛ to 1½ four times a day; gr. ½ is a fair average dose). 3. It is free from the unpleasant effects of quinine,—headache, deafness, tinnitus,—and it does not cause nausea or disordered digestion in the doses ordinarily given.—*Lancet*, February 19, 1887.

MISCELLANY.

FLAVORING OF ANIMALS.—It is suggested that a new industry might be created in the raising of poultry and various domestic animals upon certain kinds of food which will impart to their flesh new and palatable flavors. It is well known, for instance, that the exquisite savor of the canvas-back duck is due to the wild celery it feeds upon in the Southern marshes, and the delicious Congo chickens owe their superior excellence to the pine-apples they eat. The grouse of the far Western plains is aromatic with the wild sage; wild ducks and other sea-fowl have a fishy flavor; and the fish fed to swine may almost be said to be eaten over again by the consumer of their pork. Milk is especially affected by whatever is eaten, as every farmer can testify whose cows give bitter milk whenever they eat the leaves of burdock, etc. There can be no doubt that the nature of their food greatly modifies the taste and quality of the meat of most animals, and perhaps with proper effort some really valuable discoveries may be made in this direction.—*Zymotechnic Magazine.*

LEAD-POISONING.—The daily papers of Philadelphia have attributed the deaths of eleven persons to eating buns or cakes artificially colored by chromate of lead. Dr. D. D. Stewart publishes an interesting paper upon the subject in the *Medical News* for June 18, containing records of eight cases in which the poisoning was chiefly manifested by convulsions.

JEFFERSON MEDICAL COLLEGE.—The trustees of Jefferson Medical College have restored to the chair of Anatomy, now occupied by Professor William S. Forbes, M.D., the control of the surgical clinics by the following resolution:

"*Resolved*, That hereafter the duties which relate to and are connected with the holding of the surgical clinics shall be performed by the Professor of Anatomy in equal association with the Professors of the Principles and Practice of Surgery and Clinical Surgery."

DR. RICHARD J. LEVIS having announced his intention of retiring from the duties of active professional life, a number of leading professional men tendered him a public reception at the Hotel Bellevue, Philadelphia, on the 21st inst. Professor D. Hayes Agnew was Chairman of the Committee.

THE INTERNATIONAL MEDICAL CONGRESS.—The members in attendance at the recent meeting of the New Jersey State Medical Society subscribed five hundred dollars towards the Entertainment Fund, according to the daily press.

DR. WILLIAM GOODELL has removed to No. 1418 Spruce Street, Philadelphia.

OFFICIAL LIST

OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U.S. ARMY FROM JUNE 5, 1887, TO JUNE 18, 1887.

COLONEL J. H. BAXTER, CHIEF MEDICAL PURVEYOR.—To proceed to New York City for the purpose of inspecting the medical purveying depôt at that place. S. O. 133, A. G. O., June 10, 1887.

PARAGRAPH 15, S. O. 52, A. G. O., March 5, 1887, is so amended by Par. 9, S. O. 133, A. G. O., June 10, 1887, as to direct that MAJOR CHARLES H. ALDEN, SURGEON, be relieved from duty in Department of Dakota about June 20, 1887, and he is granted leave of absence from the date when so relieved, to include August 27, 1887.

MAJOR B. E. FREVER, SURGEON.—Granted sick-leave for one month. S. O. 28, current series, Division of the Pacific, amended by S. O. 29, Division of the Pacific, June 2, 1887.

MAJOR B. E. FREVER, SURGEON.—Found incapacitated for active service by an Army Retiring Board, and granted leave of absence until further orders on account of disability. S. O. 133, A. G. O., June 10, 1887.

MAJOR W. S. TREMAINE, SURGEON.—Sick-leave still further extended two months on account of sickness. S. O. 129, A. G. O., June 6, 1887.

CAPTAIN JOHN D. HALL, ASSISTANT-SURGEON.—Leave of absence extended one month. S. O. 136, A. G. O., June 14, 1887.

CAPTAIN A. H. APPEL, ASSISTANT-SURGEON.—Granted leave of absence on surgeon's certificate of disability, for six months. S. O. 127, A. G. O., June 3, 1887.

FIRST-LIEUTENANT W. C. BORDEN, ASSISTANT-SURGEON.—Granted leave of absence for one month. S. O. 138, A. G. O., June 16, 1887.

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U.S. NAVY FOR THE WEEK ENDING JUNE 18, 1887.

SURGEON THOMAS C. WALTON.—Ordered, June 15, for examination preliminary to promotion as Medical Inspector.

SURGEON A. F. PRICE.—Detached from special duty at Annapolis, Maryland, proceed home, and wait orders.

SURGEON JAMES M. FLINT.—Detached from the "Albatross" and ordered to the Smithsonian Institution.

PASSED ASSISTANT-SURGEON W. G. G. WILLSON.—Ordered to the Receiving-Ship "Independence," Mare Island, California.